



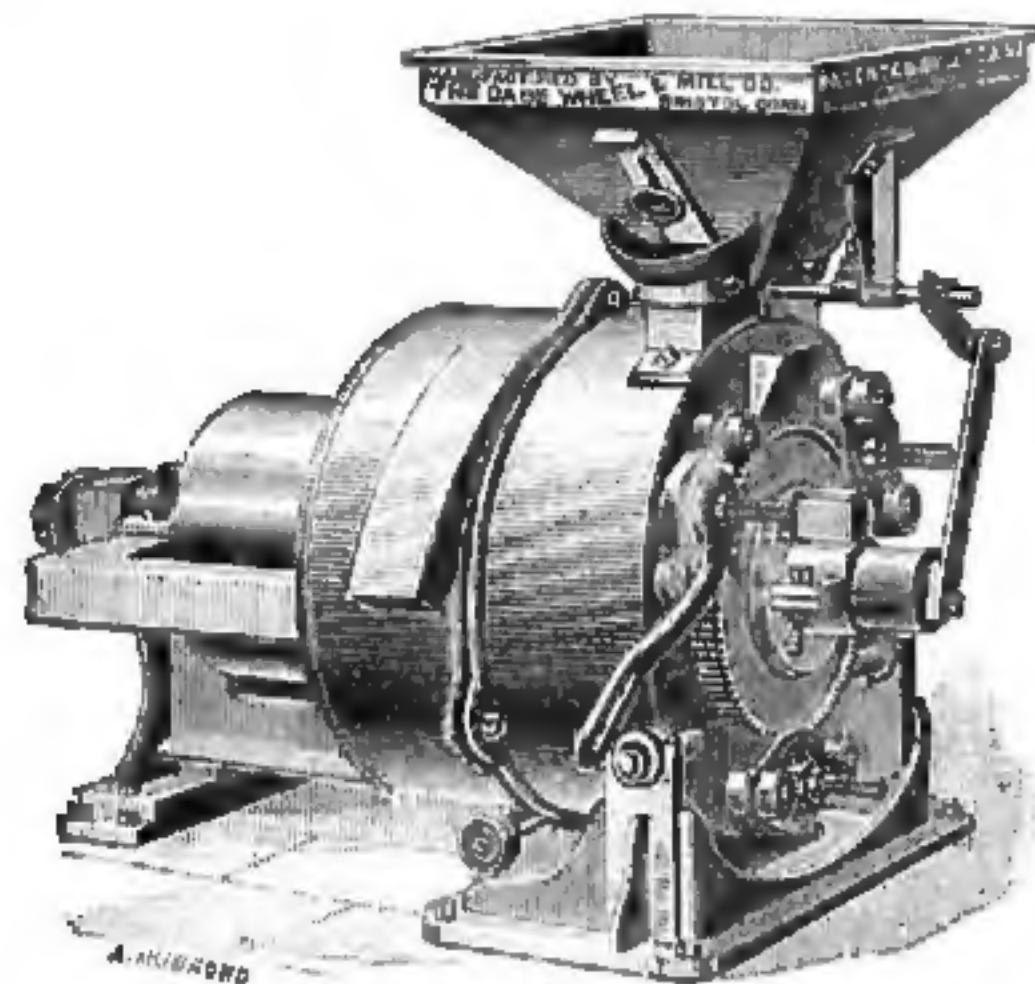
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 1.

BUFFALO, N. Y., MARCH 4, 1889.

\$1.50 PER YEAR



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & CO., Meriden, Conn.

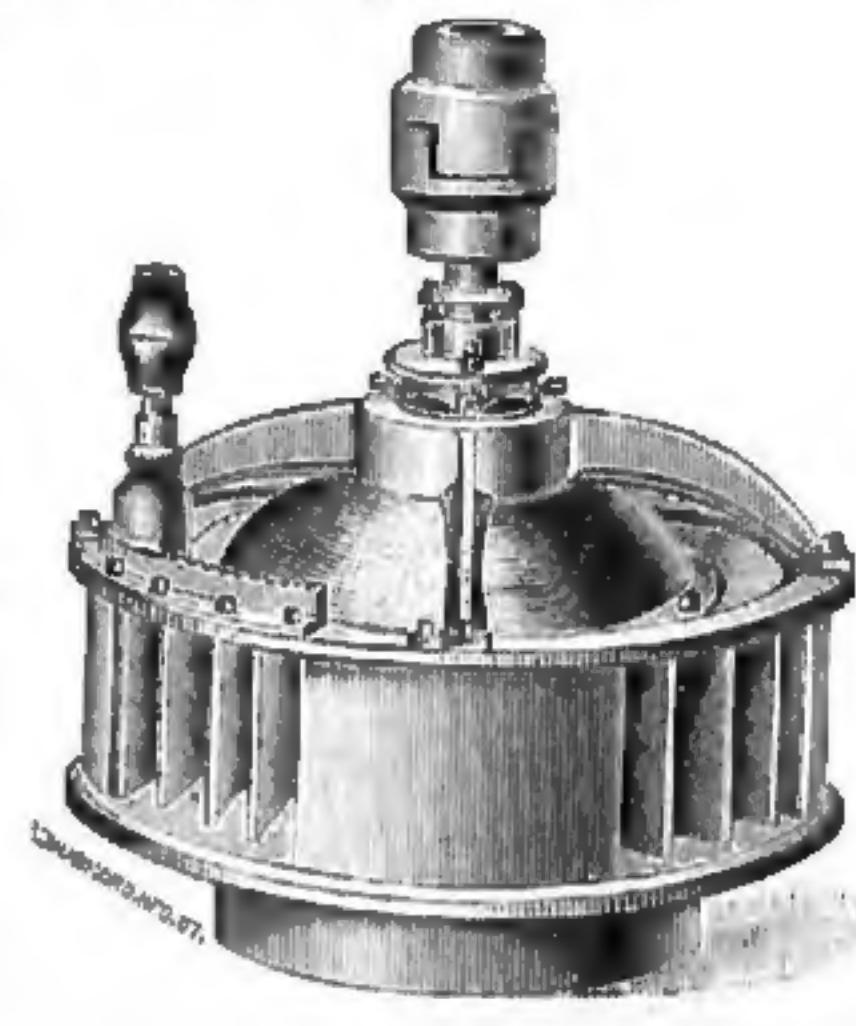
"Superior to any mill in use."—GEO. WESTON, Bristol, Conn.

"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.

"We take pleasure in recommending it."—GARLAND LINCOLN & CO., Worcester, Mass.

SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

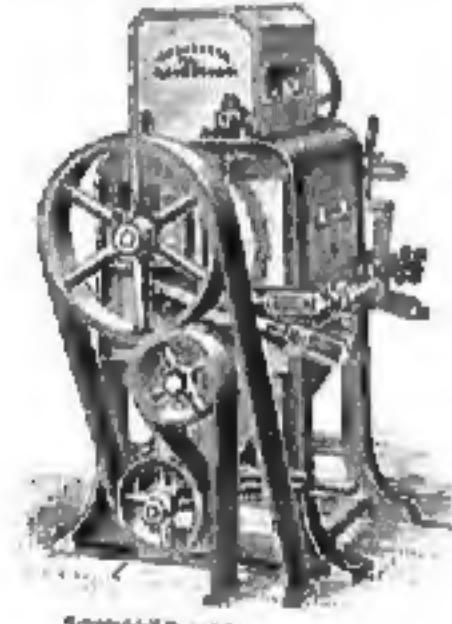
The Improved National Turbine Water Wheel



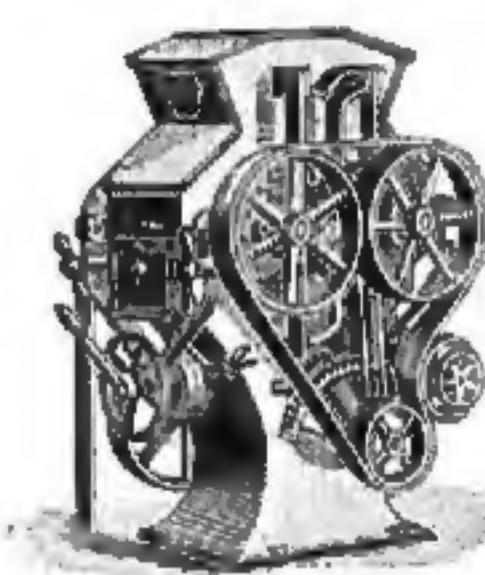
The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

The Case Wheel & Mill Co., Bristol, Conn.

NOTICE.



The J. B. ALLFREE CO., INDIANAPOLIS, IND., wish to inform their milling friends and the trade in general that they are prepared to build and equip throughout mills of any capacity in a style that can not be excelled. Bolting Cloth Trade a Specialty.



COMPLETE OUTFITS

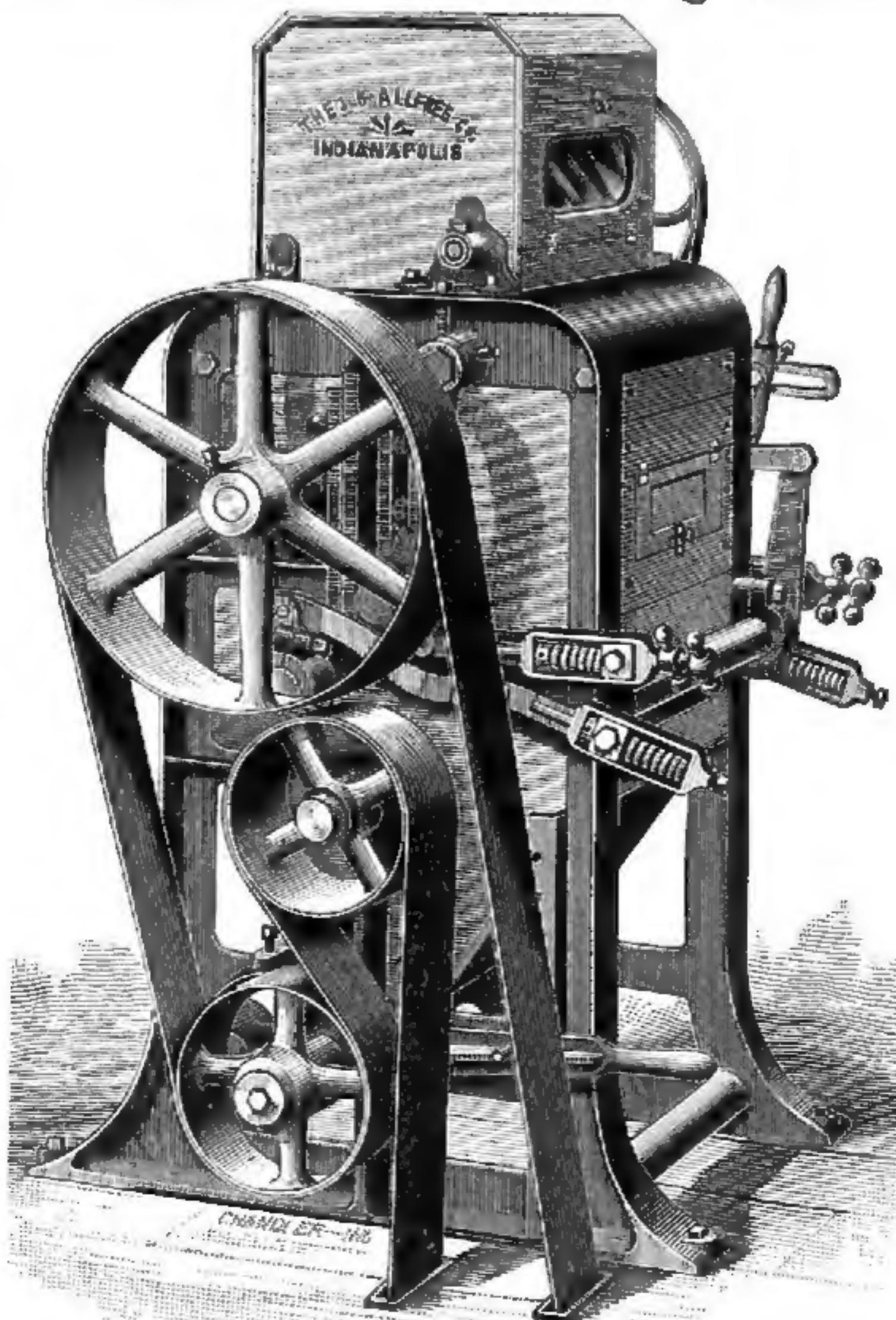
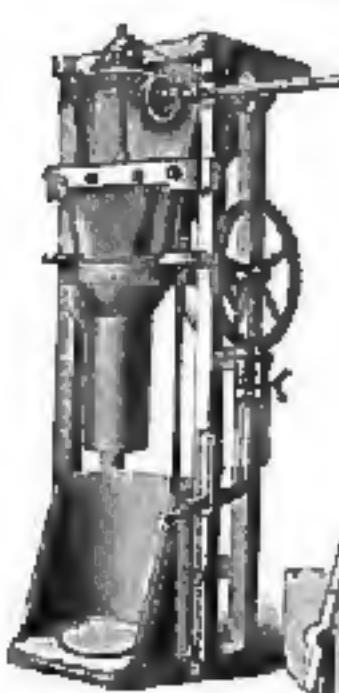
—FOR—

CORN-MEAL

—FURNISHED AT—

LOW PRICES.

Millers interested in Hominy and Germless Goods will do well to get prices from us on the Keystone Huller and Pearler.



—WE MANUFACTURE—

AUTOMATIC ENGINES.

The Keystone Four Roller Wheat Mill.

The Keystone Four High Corn Mill.

The Success Bolter and Dresser.

The J. B. Allfree Purifier.

The J. B. Allfree Sieve Scalper.

The J. B. Allfree Co.'s New Bolting Chest.

The J. B. Allfree Centrifugal Reel.

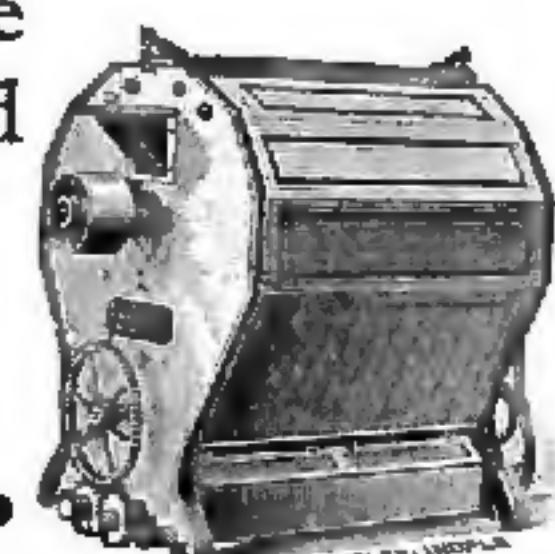
The Climax Bran Duster.

The Allfree Flour Packer.

The Keystone

Huller and

Pearler.



ADDRESS FOR ILLUSTRATED DESCRIPTIVE CATALOGUE,

The J. B. Allfree Co., Indianapolis, Ind.

RIGHT • TO • THE • POINT

"The best laid plans o' mice and men
Gang aft agley."
But the Case Mill gets there every time,
So all the millers say.



"WE PUT IN A CASE SHORT SYSTEM MILL."

Old father Wise, with twinkling eyes,
Points backward to the well-filled till,
While Thrifty scans the new made plans
To double up the CASE SHORT MILL.

"WE DIDN'T!"

Old Shiftless weeps—the sick cat sleeps,
Doolittle has gone out to pray,
The spiders fill the empty till,
While hungry rats now hold full sway.

JUST TAKE A LOOK AT WHAT THIS MAN WRITES:

THE CASE MFG. CO., COLUMBUS, OHIO.

Gentlemen: Enclosed please find settlement in full of my account. The 4-break mill works splendid and am well pleased with it. The Inter-Elevator Flour Dressers are everything you represent, both in capacity and excellence of work. The Special Purifiers are a fine machine and far ahead of the Purifiers you put in my other mill in '83. Am especially pleased with the millwright work. It is well planned and finished in a good, workmanlike manner. I can not praise your millwright and his work too highly.

Yours resp'y,

ELYRIA, OHIO, Oct. 10, 1888.

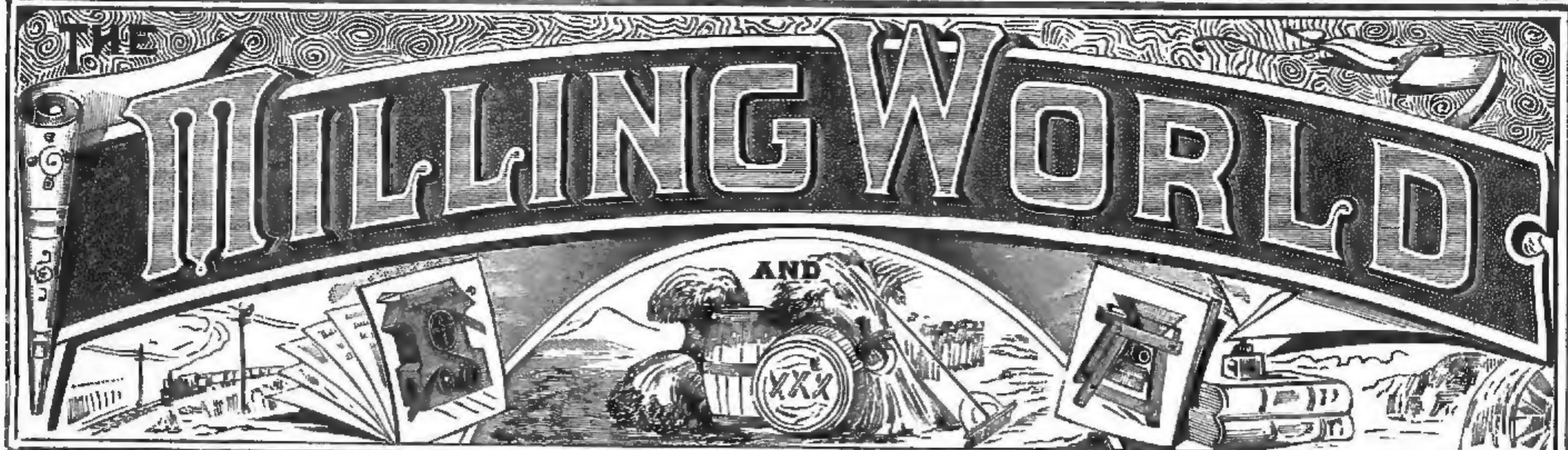
GARRET REUBLIN.

If you want a successful mill write us. Long System Mills remodeled on short notice. Case Short Break Corrugations put on any make of rolls. Our Roller Corn Mills are a most profitable investment. Now is the time to put one in your mill. Our Aspirator and Purifier for Corn Meal will astonish you. Belting, Gearing, Elevator Supplies, Silk and Wire Cloths shipped promptly on receipt of order. If you want mill supplies of any kind write us. Estimates on mills of any desired capacity furnished on short notice. Write us at once and state the capacity wanted and number of grades of flour you wish to make. The Automatic Feed on our machines makes them superior to all others. Catalogues and Circulars Mailed on Application.

RE-DRESSING ANY MAKE OF ROLLS PROMPTLY A SPECIALTY.

THE CASE MANUF. CO., COLUMBUS, OHIO.

PLEASE MENTION "THE MILLING WORLD."



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 1.

BUFFALO, N. Y., MARCH 4, 1889.

\$1.50 PER YEAR.

BUFFALO millers evidently do not intend to be "left" when the spring-wheat supply is exhausted. It is an interesting fact that a syndicate of the millers of this city has bought 600,000 bushels of No. 2 Chicago spring wheat. That was probably the largest cash purchase on record. The Buffalo millers appear to believe that the shortage in the spring-wheat supply is an assured thing.

DAKOTA is now practically a State, or, perhaps more accurately, two States, as the last obstacle to her admission to the Union is removed. Now let Dakota, North and South, or whatever she may call her two great divisions, be heard from! She has tin, coal, natural gas, gold, lead, timber and other valuable resources, but she has also the capacity to grow an enormous quantity of the most superlative wheat. Let all her resources be developed, and beyond all things else let her wheat-growing capacity be developed to the utmost. All hail, Dakota!

THE convention of winter-wheat millers at Indianapolis appears to have been a harmonious gathering. Inspired by the apparent success of the Central Association, the millers of the winter-wheat States have decided to try what advantages they may secure by co-operation on a wider scale. We expect to see much real good accomplished by the association formed at Indianapolis in the way of regulating sales and prices. If that point is properly treated, all other abuses will be found easy of correction. So far as the proposition to restrict output is concerned, we have little or no confidence in it so long as there are outside of the Central Millers' Association a large number of mills that will not restrict and that will take advantage of the restriction by the pledged mills. Restriction that does not restrict is not what is wanted. One association mill of 500-barrel capacity may restrict to 250 barrels output daily, but that restriction can have no effect in reducing stocks on the market so long as two or three unpledged mills in the same district, of an aggregate capacity of 600 barrels in ten hours, increase their output to 800 or 900 barrels in 20 hours. The most difficult feature of the situation is the output feature. Until all, or nearly all, the winter-wheat mills are drawn into the association, that feature is not to be controlled by ordering a reduction of 50 per cent. or 100 per cent. in output.

THE spring-wheat millers have evidently seen a light. Leastwise, that is the way it looks to a humanimal comfortably ensconced on a divergent ramification of a gigantic arboreal growth. Messrs. A. A. Freeman, of LaCrosse, Wisconsin, and F. L. Greenleaf, of Minneapolis, Minnesota, have sent out the following notice to the spring-wheat millers:

The agreements on reduction of output in February, aggregating about twenty-five thousand barrels capacity, are not sufficient, in the opinion of the committee, to warrant declaring a formal shut-down, and particularly so as the action of the winter-wheat millers was unfavorable on this question at their recent general meeting.

Score one practical result of the Indianapolis meeting. Mr. Freeman has been the inventor, the constructor and the perpetuator of the up-and-down-right-and-left-and-all-

around-double-open-and-shut restrictionist movement on the part of the spring-wheat millers. He began his work on that movement in June, 1888, at the convention of the Millers' National Association in Buffalo. His monologues on the subject would fill a million printed volumes, each as large as Webster's *Unabridged*. And to what effect? Simply this: Restriction of itself has failed to do what was promised by it and premised of it. The theory that the best way to hold business abroad is to let it go has fallen still-born. The spring-wheat millers, at least the more intelligent ones among them who were not enamored of volatile theories and fantastic juggling with figures, have not really at any time thought that restriction would mend the evils in the trade, and the Freeman-Greenleaf notice to disregard the restriction is doubtless the result of pressure on the part of those millers who from the start did not favor curtailment. It happens to be convenient to throw the responsibility upon the winter-wheat millers, and that is done by the spring-wheat committee to soften the sickening thud with which they come down. It is all very comical, and it is all very human.

ONE of the curious and amazing things in connection with the wheat business in England is shown in the following London report: "Russian wheat, of which there is a fair stock on hand, both in this country and in France and Belgium, continues to be the principal wheat in business passing, being very cheap, although generally very dirty. It is, however, a capital wheat for strength, and our millers, at least those who are able to clean it of impurities, which amount to from 5 to 10 per cent., prefer it on account of its price to any other." Wheat containing from 5 to 10 per cent. of impurities cheaper than wheat free from impurities! Millers who are able to clean it prefer the dirty wheat! According to the Mark Lane quotations in London on February 4 Russian wheat from St. Petersburg was quoted at \$1.04 a bushel and South Russian wheats at \$1.10 a bushel. Allowing 10 per cent. for impurities the Petersburg wheat cost at least \$1.16 a bushel and the South Russians \$1.23 a bushel. On the same date Oregon and California wheats sold in the same market at \$1.22 a bushel, Walla Walla at \$1.19, No. 2 Milwaukee at \$1.24 and No. 1 Duluth at \$1.39. Of course no sane person will believe that the Russian wheats of the best sort are equal to either the No. 1 Duluth or the No. 2 Milwaukee, which slightly exceed them in price, and the Walla Walla and Oregon and Californian wheats, which are better than the Russians, are about the same in price. Where does the "cheapness" of the dirty Russian wheat come in? Again, the most competent British authorities have in the past month explicitly stated that the flour made from the Russian wheats is so unsatisfactory, so "weak," that it requires an admixture of "strong" American flour to float it on the markets. Where does the "strength" of the Russian grain appear? Liars anywhere and everywhere will have a hard task to write up the Russian and Indian wheats and to write down the American and other really good, strong, fine, homogeneous and always reliable wheats.

The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture

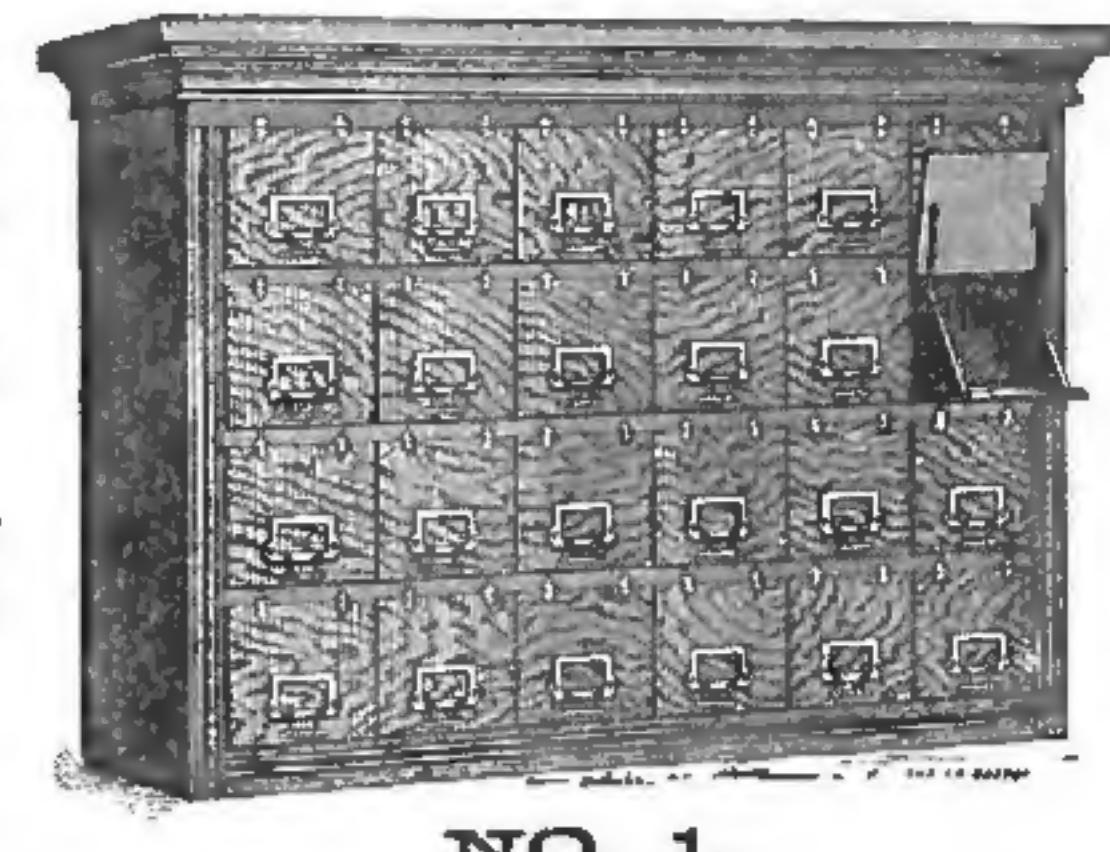


NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Conceded to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

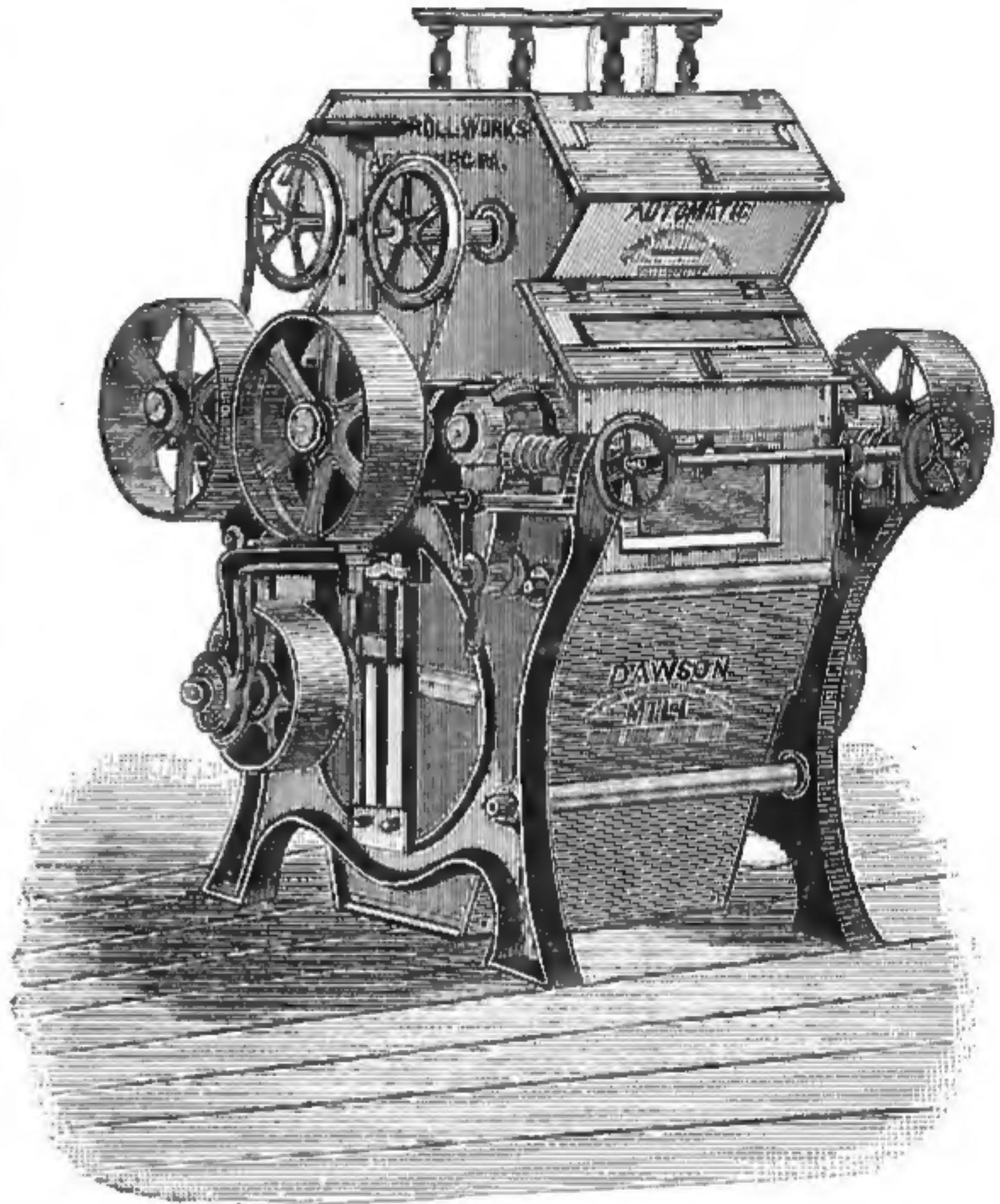
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.

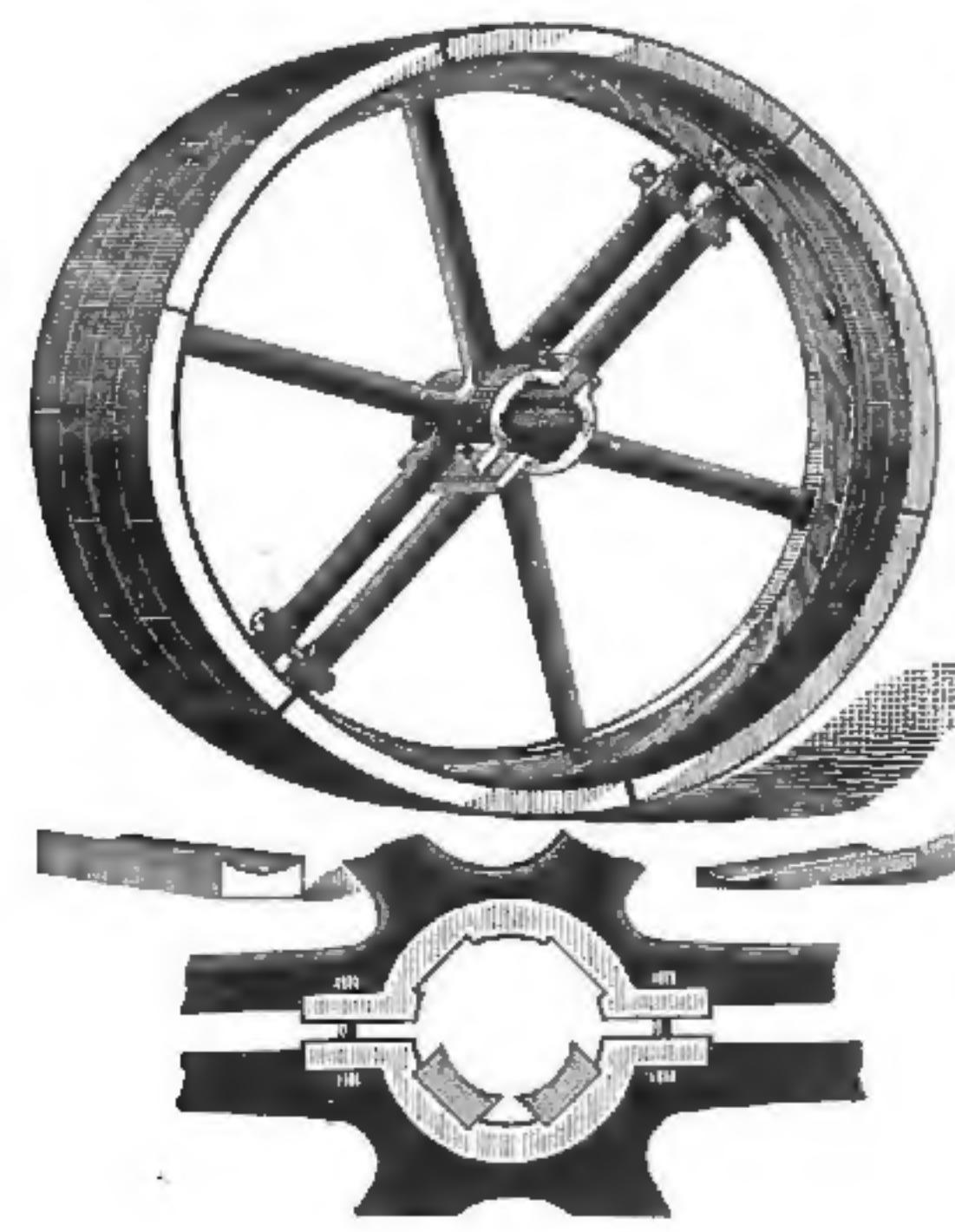
C. H. BIRD & CO., KALAMAZOO, MICH.

MANUFACTURERS OF PATENT

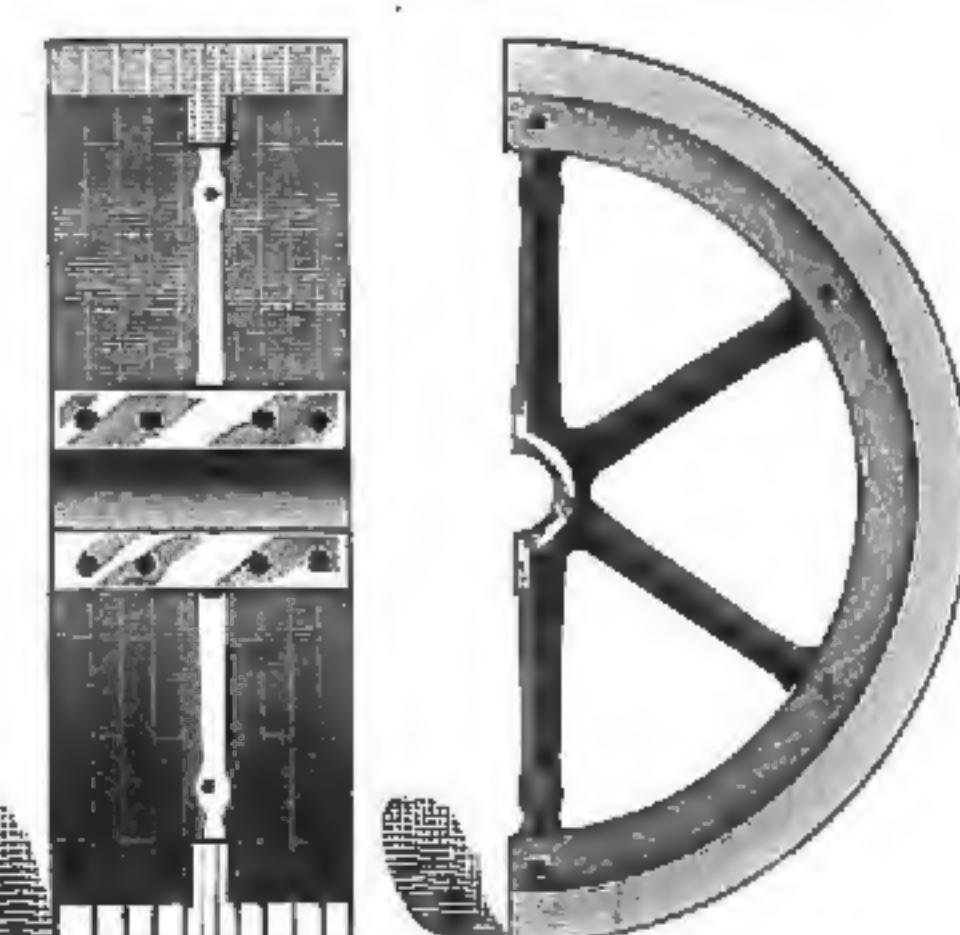
Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

The Best Pulley on Earth!



Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.



SEND FOR CATALOGUE AND PRICE LIST.



PUBLISHED EVERY MONDAY. OFFICES: Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application. Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

**THE MILLING WORLD,
BUFFALO, N. Y.**

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

WANTED.

A situation in a mill, by a married man of steady habits; 34 years old; no children; had three years' experience in a custom mill; can furnish best of reference. Address, 24tf CHAS. BETTIS, Forestville, N. Y.

WANTED.

At once by a No. 1 miller, 16 years' experience, 38 years of age with small family, well recommended and strictly sober. Can come at once, wages not so much an object as steady work. Will run mill on shares if desired. Address FRANK R. SCHUYLER, North Ridgeway, Orleans county, N. Y. 1

SITUATION WANTED.

By a young man 18 years old, industrious and of good habits, a situation to learn the milling business thoroughly in all its departments, where he would have a good home among Christian Associations. Address, J. J. Y., Lock Box 514, Hornellsville, Steuben County, New York. 1

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

MILLSTONES FOR SALE CHEAP.

Complete run of millstones, curb, spindle, hopper, etc. GARDNER MORSE, Eaton, Madison county, N. Y. 16

MILL PROPERTY FOR SALE.

In Central New York, on reasonable terms and easy payments. For particulars address B, care of THE MILLING WORLD, Buffalo, N. Y. 14

FOR SALE.

10 Single Sets 9x30 Stevens Rolls.
■ Single Sets 7x12 Ferriers Rolls.
2 Centrifugal Reels.
2 No. 3 Niagara Bran Dusters.
2 No. 3 Prinz Dust Collectors.
1 No. 4 Hunter Purifier.
1 No. 6 Garden City Purifier.
1 No. 1 Pyne Purifier.
1 No. 3 Richmond Brush Machine.
1 No. 2 Silver Creek Scourer.
1 No. 00 Becker Brush Machine, over 50 Run Millstones all sizes, all complete. Above Machines are in first-class condition and practically as good as new. Address J. B. DUTTON, 115 E. Fort Street, Detroit. 18tf

If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,

OFFICE, 20 SOUTH BROAD STREET,
PHILADELPHIA, PA.



HORIZONTAL (underrunner.)

MILL MACHINERY FOR SALE.

One 24-Inch Portable Mill, wood frame, capacity 15 to 20 bushels per hour; new, best make.
One 20-Inch Portable Mill, iron frame, capacity 12 to 16 bushels per hour; new, best make.
One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 18-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 8 Dustless Separator; new, a bargain.
Two No. 4 Scientific Grinding Mills, capacity 40 to 50 bushels per hour; new.
A Lot of Elevator Buckets, brand new, best make, any size desired, very cheap.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, 5tf N. Y.

FOR SALE.

Three-run mill, repaired, and a first-rate dwelling house, built last summer. I don't owe one dollar, but will sell cheap for cash, to build a mill in Forest county. Address J. S. PORTER, Lamartine, Clarion county, Pa. 2225

FLOUR MILL FOR SALE.

Water power custom and merchant mill; 2-run 4½-feet buhrs, well fitted up; doing large business; 52 miles from New York; close to depot; good reasons for selling. JOHN ORR, Mountainville, Orange county, N. Y. 2225

ATTENTION is called to the announcement made in another column by Mr. J. Murray Case, late of the Case Manufacturing Company, of Columbus, O. There is probably no man in the United States who is more widely or more favorably known among millers than Mr. Case, and certainly there is none who more justly deserves their highest esteem. He is one of the most conspicuous men in his line in the world. Every reader will agree with him in what he says of the great house which he did so much to establish, and of the famous milling-machines that embody his genius and experience and bear his familiar name. We wish Mr. Case unlimited success in his European business, and we wish the Case Manufacturing Company a continuance of the success they so richly deserve.

CANADIAN contemporaries of more or less, usually less, truthfulness and reliability continue to assert that the average wheat-yield in Manitoba is about 33 bushels to the acre. We are puzzled by that assertion. The area sown to wheat in Manitoba is said to be nearly 600,000 acres. At 33 bushels to the acre that area should yield a crop of 19,800,000 bushels. We do not assert that Manitoba does not yield that amount, but we are puzzled to discover what becomes of it. Allowing the Manitobans 1,000,000 bushels for food and seed, there would still remain over 18,000,000 bushels to be ground into flour or exported from the province. What became of all that wheat? It is not quoted in Glasgow, London or Liverpool. All the mills in the province could not grind it. The other provinces of Canada could not absorb it. It does not reach the States. What becomes of it? We are puzzled at the mysterious disappearance of so enormous an amount of grain. Where, O, where does it go?

ACCORDING to reports from the Northwest, the wheat-growers are determined to give frosted seed wheat a trial. A dispatch from St. Paul, Minn., dated February 26, says: "Prof. Green, of the State Agricultural College, has completed his experiments to ascertain the value of frosted grain for seed. His report shows that from 40 to 90 per cent. of the total amount planted will sprout and grow. Oliver Dalrymple, the largest wheat-grower in the Northwest, is inclined to believe the experiment can safely be relied upon and will test the matter further on his 40,000 acre farm." Oliver Dalrymple, who is a wealthy man, can afford to make the trial, because a failure will not embarrass him, but no farmer with a 100-acre tract can afford to run the risk. Every man concerned should remember that the conditions under which the professors have sprouted the frosted grain can not be duplicated on the open prairie. The seed that may sprout from 40 to 90 per cent. in a hot-house, in an equal artificial heat, in specially fertilized soil, and under special care in every particular, may sprout from 40 to 00 per cent. when sowed on the prairies. Furthermore, none of the trials have followed the frosted seed to maturity to determine whether the deficiency in the seed is reproduced in the harvest. The whole question is unsettled, and all the common-sense arguments in the case point to the wisdom of sowing only good seed and the folly of risking time and labor on bad or doubtful seed.

LABOR AND STRIKES.

A. B. SALOM.

LABORERS continue to learn nothing by costly experience. Year after year they go on repeating the same foolish tactics with the same discouraging and disastrous results. In 1886 they followed fanatic leaders into senseless, hopeless strikes, with all sorts of concomitant disorder, and they lost all they contended for. In 1887 they went over the same ground, under the same or similar leaders, fought the same senseless battles with the same ineffective weapons, and suffered the same disastrous defeat. In 1888, untaught by years of failure and loss and misery, they repeated their history on a magnificent scale. According to certain authorities the laborers of the United States in 1888 lost 12,000,000 days of time in strikes. At an average of one dollar a day the money lost would be \$12,000,000, but, as most of the strikers were skilled laborers, it is probable that the average would be about two dollars a day, making the total loss \$24,000,000. All this money is lost and lost forever to the strikers. There is no way by which they can recover it.

Great as is this loss in money and time, subtracting so enormous a sum from the total belonging to labor in the aggregate and greatly diminishing the amount of necessities and luxuries to which labor is entitled, another and more serious loss goes with the disastrous strikes of the year 1888 and its predecessors. That loss is the loss of the public sympathy which must always give moral support to the laborers in contentions with their employers. The loss of that sympathy has been decided. Public sentiment has fallen away from the striking laborers, not because they put their protest in the form of strikes, but because in enforcing their protest they use unlawful means, employ violence, destroy property belonging to others, attempt to bankrupt the men, the firms or the corporations against whom they strike, and, above all, and most unreasonable and inexcusable of all, deny to other laborers the right to take their places and accept the wages and submit to the regulations which they find insufficient and oppressive. They learn nothing whatever by their failures to enforce a principle that is absurd, unlawful and utterly tyrannic.

Their disregard of the rights of others is shown in the opening strikes of 1889 in the city of New York. The street-car strikers in that city had all the baneful lessons of numerous strikes in the past to warn them. Common-sense and the love of justice should have been strong enough in them to keep them from going to criminal lengths in attempting to force their employers to terms. But those are qualities not always prominent in the strikers, and they at once assumed positions that invited and insured their defeat. One of their plans was to put the public to discomfort so great that the public would in self-defense be compelled to demand that the companies should yield to the strikers. That failed. Another plan was to destroy the property of the companies, to wreck their cars, to maim their horses, to tear up their rails and to blockade their tracks. That failed. Another plan was to prevent new men from taking the places they had left. That failed. In a large city there are always many men looking for work, and the strikers were defeated at every point.

There are certain superficial thinkers and writers, whose ideas are of no importance excepting as they are enabled to force them upon the public through the press, who take the ground that the strikers are always in the right and therefore should succeed. Let these ignorant persons look for a moment at one or two of the things expected by the New York strikers. First, they expected to be unmolested by the policemen of the city while they were engaged in tearing up tracks, overturning and burning cars and destroying property. They were astounded and furious to learn that the city authorities actually proposed to protect the companies while they attempted to run their cars. Relying upon the importance of their votes, they impudently proposed to destroy as much property as it seemed necessary to destroy to cripple and bankrupt the companies. Second, they proposed to prevent the operation of the street-car lines, at any cost, for a given length of time, and then de-

mand that the charters of the companies should be revoked because they had not kept their lines in operation. Third, they advanced, by their actions, the theory that, although they had left their places in the employ of the companies, they still by some mysterious means controlled those places and had the right to say that no other men should take them without their high and mighty permission. In these three proposed things, the destruction of property, the forced revocation of charters and the refusal to other laborers of the privilege of working, the New York strikers actually expected and impertinently demanded to be allowed to go their length without molestation by the authorities of the metropolis of the United States!

Throughout the deeds of the strikers there runs always and everywhere this peculiar vein of lawlessness and insanity. A city left to such men, inspired by such ideas and operating with such instrumentalities, would be sacked at every strike. They seem to forget that there is one law for the lawless and the law-abiding. They ask every thing for themselves and deny every thing to all others. They regard arson, riot, maiming and murdering as legitimate weapons, and they can not understand that a striker who kills, robs, burns, wrecks and destroys should be regarded in the eyes of the law just as a professional murderer, robber, burner, wrecker and destroyer is regarded. The record of the strikers is an unpleasant one for the man whose sympathies are with labor. He sees in that record only failure, deserved by every canon of common-sense and justice. He sees blind fanaticism and destructive theories created and perpetuated by dangerous demagogues. He sees just causes lost by illegal violence. He sees labor weakened and capital strengthened in nearly every contest.

What is to be done? Is labor to accept whatever comes and make no protest? Shall laborers make no effort to wrest from capital their just rights and recognition? These are the questions asked by laborers and their sympathizers. No man can answer them satisfactorily, but any sane and law-abiding man can safely assert that strikes have hitherto been an almost absolutely useless and fruitless form of protest, and that violence and law-breaking have weakened the strikers in every case. The day may come when laborers, educated to rely upon peaceful and legal methods, will be able to get by arbitration what they have not yet got and never will get by lawlessness and criminality. Laborers are at all times surrounded by enough difficulties without drawing upon themselves the stigma of violent abuse of the rights of their fellow-laborers and of their employers. So long as strikes mean instant crime, and so long as strikers learn nothing from repeated scourgings and defeats, so long labor will wage through strikes a costly, cruel, hopeless, losing warfare with capital.

MR. CASE TO THE MILLING PUBLIC.

American millers will read with interest the following announcement to the milling public made by Mr. J. Murray Case, formerly connected with the well-known Case Manufacturing Company, of Columbus, O. Mr. Case says:

"I wish to say to the milling public that during the last twelve years I have devoted my entire time to the development and introduction of inventions in milling machinery. I have in this connection made many warm friends throughout the United States and Canada, who have liberally patronized the company I have represented and for whose liberal patronage I wish to offer my sincere thanks. The business of the Case Company has rapidly developed, until our machinery is now in demand extensively in foreign countries, so much so that I feel it to my interest to withdraw from the American interests and centralize my efforts in Europe, and in doing this I separate from the company with a most hearty good feeling and feel justified in assuring my friends that, in dealing with the Case Manufacturing Company in the future as in the past, they will not only receive honorable treatment, but that, in the purchase of the Case machinery, they will obtain the very best milling-machines now in use. All my American and Canadian patents are now owned and controlled by the Case Manufacturing Com-

pany. Trusting that this company will receive as liberal patronage in the future as it has in the past, and wishing the company every success, I am,

Sincerely yours, J. MURRAY CASE."

SELF-TRAMMING PORTABLE MILLS.

Herewith is an engraving illustrating the famous self-tramming portable mill manufactured by Mr. Samuel Carey, of 17 Broadway, New York, N. Y. Particular attention is invited to this mill, in which the principle of construction differs from that of the ordinary buhr-stone mill chiefly in the manner of hanging the upper non-revolving stone on a universal joint, so that the stones are parallel under all circumstances. As this condition is absolutely necessary to fine grinding, this feature of the mill is of great advantage. The running stone is fixed on the spindle and perfectly balanced, and at grinding speed it will not oscillate in the least, so that the cock-head hanging is entirely useless as a means of causing the stones to fit, and with this hanging it is difficult to obtain so perfect a balance at high speed as with a stiff hanging. As it is always in tram, it grinds middlings perfectly. With this mill mineral paints, bone-black and similar substances can be ground to an impalpable powder with certainty. In grinding mineral paints considerable heat is generated, and it is of advantage to exhaust air through



CAREY'S SELF-TRAMMING PORTABLE MILL.

the mill, both to cool the product and mill and to keep down the dust. It is of great importance in grinding with a mill-stone that the feed should be uniform and the particles fed to the mill of a uniform size. Consequently, in a plant for grinding phosphate rock, there should be a pair of rolls between the crusher and the mill. Rolls are also of great advantage in grinding iron ore, paints and ochers to size the material. It is not advisable to attempt to reduce mineral paints from the size passing through the rolls to impalpable powder at one operation. The material should be reduced on one mill and fed from it to two finishing mills, which should be set as close as possible. No sieves or bolts of any kind are necessary, if the Carey self-tramming mills are intelligently used.

POINTS IN MILLING.

ELECTRICITY ought to find many practical applications of great value in flouring-mills. It may be the motive power of the mill. It may light the mill. It may be applied to a system of call-bells throughout the mill in connection with speaking-tubes. It may be employed with a suitable apparatus to discover heated bearings. It may control an automatic indicator and register recording the running and the stops of the mill. It may be used to reveal the location of chokes. Other uses quite as important might be devised.

MILLERS generally are paying a good deal of attention to

the kind and quality of wheat they buy. It is an accepted conclusion that the quality of the grain used really fixes in advance the quality of the flour produced. No intelligent miller nowadays expects, when he starts in second or third rate grain, to see it come out first-grade flour. He knows that first-grade flour is to be found in first-grade grain only. He knows that no system of grinding, no equipment of machinery, no amount of care in manipulation will serve to get out of any grade of grain what is not in it. He knows that poor machinery and bad and careless work will produce poor flour from even the best of grain, but he does not believe that either good machines or proper manipulation will accomplish the impossible with inferior grain.

MORE than once I have suggested in these columns that the miller really can control the farmer in the matter of selecting seed for sowing. I am informed of several cases in which millers have revolutionized wheat-growing in the regions that partly supply their mills. Refusal to buy the undesirable kinds of wheat is the sure remedy. The desirable kinds will be sowed by the farmer who finds the undesirable kinds left on his hands.

ROLLER-MILLING ideas are now quite as exact and definite as those on buhr-milling. Millers who use rolls know what they wish to do, what they propose to do, and what they are able to do quite as thoroughly as the buhr-millers, who have centuries of experience instead of a score of years to back their work. "Modern" milling processes are now old enough to be definite, thorough, practical and settled.

SOME of our friends advance the idea that the crease-dirt really does not belong in the seam where it is generally found. They claim that it is created there after the grain goes to the machines. I have in my possession some grains of fine wheat, both spring and winter, all first-grade grain, just as it came from the stalks, picked out by hand, having never been touched by a machine of any sort, and every grain has a seam, and every seam is filled with a dark substance, much darker than any portion of the fuzz or of the unpolished coats of the berries. How did that dark substance get into that seam? What is it? If it is not "crease-dirt," what other good name is at hand for it? Don't all answer at once.

IS THERE printed to-day a single milling journal that is distinctively a "long-system" advocate and an opponent of the short system? Wonder if there has not been a letting down in the number of reductions all along the line, even in quarters wholly unsuspected?

LET me suggest through this column to both the spring and winter wheat millers, who are aiming to secure a restriction in output, that they investigate the quoted "capacity" of all the mills in their bailiwick whose work they wish or aim to control. Looking over a recently published list of mills in this country, I saw "capacity" ratings that surprised me greatly. One mill rated at 500 barrels never could grind 300. Others rated from 500 down to 200 barrels are, to my idea, incapable of grinding 50 per cent. of their reported "capacity." If such compilations are the basis upon which restriction has been ordered recently, the mystery of increasing flour stocks on restricted output becomes perfectly plain. Let the managers attempt to find out "actual capacity." The alleged "authoritative" lists published do not show the truth. Naturally every mill-owner desires to have his "capacity" rated as high as possible, and an investigation in this direction might reveal some interesting things and end in restriction that really restricts. The point is worth consideration.

MILL-BUILDING still goes on in the United States at a lively pace. In the South the number of new mills built each year is quite large, and even in the North there is no indication that the growth of the milling industry is ended. The growth of population is great, and the growth of the

milling capacity of the country must keep pace with it. Consequently it is reasonable to expect a good degree of activity in this line for years to come. The mammoth mills of the great centers have not annihilated the smaller mills of the country, as the prophets said they would. Indeed, the small mill in the United States is still a very lively and a very numerous insect.

CANADIAN MILLERS AND FLOUR DUTIES.

Commenting on the action of the Canadian millers in asking for increased duties on flour imported into the Dominion, the Toronto, Ontario, "Monetary Times" says: The Canadian millers have resolved to press their claim on the Canadian Government for a readjustment of the duties on wheat flour. This resolution was come to at a good representative meeting of the millers' Association, held in the Board of Trade rooms February 9. What is asked for is a specific duty of \$1 per barrel on American flour, leaving the duty on wheat the same as at present. One speaker stated that the duty was required to enable Canadian millers to compete successfully with American Millers. The milling interest, it was said, was large and powerful, and it intended to use its power to enforce its demand. It was maintained by more than one speaker that the relative duties on wheat and flour give the Americans undue advantage, though this point was not much dwelt upon, and there does not appear to have been any attempt at a mathematical demonstration of the grievance alleged. One gentleman, putting the demand on a new footing, said the millers ought to have a protection of 20 to 25 per cent. because that indulgence is allowed in other manufactures. One speaker said it was a question of votes, and that the deputation ought to extort a concession, if necessary, by demonstration of electoral power. A deputation that should venture on such ground would run the risk of being politely asked to withdraw. And if it come to that, it might well be questioned whether there are not more people in Canada who desire untaxed flour than there are of millers and their friends who want a dollar a barrel duty imposed. A despatch from Montreal was read, showing the stock of flour there to be 95,000 barrels, not including that in the hands of city millers, about 70 per cent. of which was American. Neither Quebec nor the Maritime Provinces care where the flour they consume comes from; they only desire that it shall be as cheap as possible. The millers desire an opportunity of making flour dearer, and if they succeed the consumer will have to pay the difference.

Nevertheless, if it can be shown that the present duties discriminate against the Canadian miller and in favor of the American, they are entitled to redress. They ought not to be placed at a disadvantage in their own country. At the same time the scales should be held evenly; the millers should not be allowed unduly to increase the price of bread for their own profit. We have taken some pains to ascertain how much wheat is consumed in making a barrel of flour, and we have done so without seeking the aid of Canadian millers. We have obtained from American millers, through a gentleman who has no interest in milling, statements bearing on the question. It must not be forgotten that all millers, American as well as Canadian, have an interest in having the public believe that it takes the largest possible quantity of wheat to make a barrel of flour. Wheat is the thing they buy from the farmer and flour the thing they sell to the general public, and they have an interest in making it appear that the material out of which a barrel of flour is made costs so much as to leave them only a small profit. Taking the statements which we have received at their face value, it would appear that the Canadian millers are not without a substantial grievance. One thing is certain, that there is no invariable quantity of wheat which can be named as the equivalent of a barrel of flour, everywhere, at all times and under all circumstances. It is not a constant but a variable quantity; though the average, so far as it is possible to get at it, does not appear to have been exaggerated by Canadian millers.

A letter from the Washburn, Martin and Co.'s Mills, Min-

neapolis, which have a capacity of 8,200 barrels a day, says: "I think 4 bushels and 35 pounds would be the amount of wheat used in making a barrel of flour. Of this amount 60 per cent. would be patent, 28 per cent. clear, and 12 red dog." But the writer adds: "It is almost impossible to give reliable information on this subject, owing to the condition of the wheat crop" of last year. In another letter from Minneapolis we read: "The vice-president and manager of the Columbia Mills says it runs all the way from 4½ to 5 bushels, of 60 pounds, of wheat to the barrel, and that the price of flour varies constantly, at present bringing from \$8.50 to \$9 per ton." The secretary of the Crown Roller Mills says 4 bushels and 40 pounds would be a fair average, producing 196 pounds flour, 80 pounds bran and middlings, "with a waste of 4 pounds." "One firm," says the letter, which is not written by a miller at all, but by a person who gathered information, "claimed to have produced flour at the rate of 4 bushels and 20 pounds to the barrel, but not from last year's crop. Sometimes, when owing to the lowness of the water country mills are shut down, flour goes up as high as \$14 a ton."

These statements all point in one direction, and as far as they go bear out the contention of the Canadian millers that the 4½ bushels of wheat are required to make a barrel of flour. The better the flour is and the worse the mill, the more wheat it takes. There are a great many more millers in Minneapolis who have not been heard from, to say nothing of other places. Our own millers when they speak on the subject generally agree in naming a common figure, 4½ bushels. As an approximate general average this figure may, in the present state of knowledge, be allowed to stand; but it is quite clear that no unvarying quantity can be relied on to produce a barrel of flour. When people go to the legislature and ask for the passage of laws for the purpose of benefiting themselves, it is not to be expected that they should present more than one side of the case; but it is the duty of the legislature to hear all sides before coming to a conclusion. As a general rule nothing can be more unjustifiable than the abuse of the legislative authority to help private interests at the expense of the general public. An examination of evidence which is not open to serious suspicions tends to show, it must be admitted, that the millers have a grievance, though we are not prepared to say that it ought to be remedied precisely on the basis which they themselves insist upon.

THE SCIENCE OF DRY ROT.

Professor Bidlake, Rhode Island, reports as follows on dry rot in lumber: No wood which is liable to damp, or has at any time absorbed moisture and is in contact with stagnant air, so that the moisture can not evaporate, can be considered safe from the attacks of dry rot. Any impervious substance applied to wood which is not thoroughly dry tends to engender decay, as floor covered with kamptulicon and laid over brick arching before the latter was dry, cement dado to wood partition, the water expelled from the dado in setting and absorbed by the wood had no means of evaporation. Wood-work coated with a paint or tar before thoroughly dry and well seasoned is liable to decay, as the moisture is imprisoned. Skirtings and wall paneling are very subject to dry rot, and especially window-backs, for the space between the wood-work and the wall is occupied by stagnant air; the former absorbs moisture from the wall, especially if it has been fixed before the wall was dry after building, and the paint or varnish prevents the moisture from evaporating into the room. Skirtings thus form excellent channels for the spread of the fungus. Plaster seems to be sufficiently porous to allow the evaporation of water through it; hence probably the space between ceiling and floor is not so frequently attacked, if also the floor boards do not fit very accurately and no oil-cloth covers the floor. Plowed and tongued floors are disadvantageous in certain circumstances, as when placed over a space occupied by damp air, as they allow no air to pass between the boards and so dry them. Beams may appear sound externally and be rotten within, for the outside being in contact with the air becomes drier

than the interior. It is well to saw and reverse all large scantling. The ends of all timber, and especially of large beams, should be free, for it is through the ends that moisture chiefly evaporates. They should on no account be imbedded in mortar. Inferior and ill-seasoned timber is evidently to be avoided. Whatever insures dampness and lack of evaporation is conducive to dry rot, that is to say, dampness arising from the soil; dampness arising from the walls, especially if the damp-proof course has been omitted, dampness arising from the use of salt sand and dampness arising from drying of mortar and cement. Stagnation of air resulting from air-grids getting blocked with dirt or being purposely blocked through ignorance. Stagnation may exist under a floor, although there are grids in the opposite walls, for it is difficult to induce the air to move in a horizontal direction without some special means of suction. Corners of stagnant air are to be guarded against. Darkness assists the development of fungus; whatever increases the temperature of the wood and stagnant air within limit also assists.

MILLING PATENTS.

Among the patents granted February 26, 1889, are the following:

John M. Finch and Wm. D. Gray, Milwaukee, Wis., No. 398,388, a rotary bolt.

LeRoy C. Tryon, Marseilles, Ill., No. 398,473, a grain-weighing-apparatus.

John H. Walsh, Mason City, Ia., No. 398,478, a rotary bolt.

Peter Provost, Menominee, Mich., No. 398,538, a grain-scourer.

Hans. Bittinger, Brunswick, Germany, No. 398,692, a shaking-bolt, assigned to G. Luther, same place.

Geo. Kirchgraber, St. Lawrence, Dak., No. 398,736, a flour-chest.

C. D. Patterson, Girard, Kan., No. 398,746, a feed-regulator.

John G. Mundy, Jackson, Mich., No. 398,788, a dust-collector.

BANANAS MADE INTO BREAD.

Ordinarily in this country bananas are eaten raw, but in tropical countries, while the natives eat them in like fashion, a more delicate and, it is said, a more healthy mode of eating them is in vogue. The soft ripe fruit, beaten to a cream with a sufficiency of Amontillado sherry, forms a delightful appetizer and is the favorite way of eating the banana in certain parts of the West Indies and of the African coast. Taken in moderation on first rising in the morning, bananas are said to be preservative of health, and in this respect are in marked contrast with other tropical fruits, which are detrimental, rather than otherwise, to continued good health. An intoxicating drink is made from the banana, and on account of its astringent properties is of considerable medical value. In Africa, and probably in other places also, the banana and the kindred tree, the plantain, are, in a very large measure, the sole dependence for the food supply of the natives. The banana when ripe contains 74 per cent. of water; of the 26 remaining parts 20 are sugar and 2 gluten or flesh-forming substance. It is not in itself a perfect food, but requires the addition of some other nitrogenous material, as lean meat.

The pulp of the banana, but more often of the plantain, is oftentimes squeezed through a sieve and is then formed into loaves, which when they are ripe will keep a very long time. In the dried state it has a resemblance to bread, both in taste and composition, but the ripened pulp is saccharine and not farinaceous. At Panama the rarest and most delicious of the banana species has its home. Small and ruddy in color, it is known vulgarly as the thumb banana, and on account of its delicate flavor it is much prized even there. It does not bear transportation well, although it may often be found in the markets of Chicago and New York. Crossing the Isthmus by the line that connects Panama with Aspinwall, the natives at the villages along the route make a habit of coming to the train, decked in primitive fashion,

with garlands of flowers around their necks and flowers in their hair, and disposing of fruit. There the thumb banana may be eaten in its perfection.

SUPREME COURT PATENT DECISIONS.

The patent law makes it essential to the validity of a patent that it shall be granted on the application, supported by the oath, of the original and first inventor.

A patent which is not supported by the oath of the inventor, but applied for by one who is not the inventor, is unauthorized by law and void.

As a patent thus obtained confers no title or right upon the patentee, a court of equity will not order him to assign it.

A court of chancery can not decree specific performance of an agreement to convey property which has no existence, or to which defendant has no title.

A bill by vendee against vendor for specific performance, which does not show any title in defendant, is bad on demurrer.

A patent issued to any applicant is only *prima facie* evidence that he is the inventor.

The March number of *Scribner's Magazine* is a notably rich and entertaining one. The contents include the following: At a Way Station—The Postmaster's Assistant, Frontispiece. The Railway Mail Service, by Thomas L. James, Ex-Postmaster-General. Vestis Angelica, by T. W. Higginson. The Master of Ballantrae—V, by Robert Louis Stevenson. A German Rome, by W. B. Scott. Hereafter, by Graham R. Tomson. Economy in Intellectual Work, by William H. Burnham. Yesterday, By Zoe Dana Underhill. An Eye for an Eye, by Robert Grant. Some of Wagner's Heroines, by William F. Apthorp; with illustrations after photographs. Mexican Superstitions and Folk-lore, by Thomas A. Janvier. Extenuating Circumstances, by William McKendree Bangs. An Animated Conversation, by Henry James. Thomas L. James, Postmaster-General in Garfield's cabinet, and now President of the Lincoln National Bank, New York, writes of the "Railway Mail Service" with sympathy and appreciation of the faithful work done and from the full knowledge given him by his long practical experience in positions of authority. This paper contains a concise history of the evolution of mail carrying and a graphic account of the work done on the most important mail trains in the country, with a tribute to the skill and dexterity of the corps of trained mail clerks.

SPECIAL NOTICES.

LIBERAL OFFER.

With a view of increasing our subscription list, we will send a copy of R. J. Abernathy's new book, "The True Short System" (Price \$2.00) and "The Milling World" for one year at the very low price of Two Dollars. Renewal will be treated same way. This offer will only continue for a limited time. Now is your chance. Send in your subscriptions at once.

Address,

THE MILLING WORLD, BUFFALO, N. Y.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO.,

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughton.

TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer

and Dresser of

MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF

Shafting. Pulleys. Hangers. Coupling. Machine and Jobbing, Etc., Etc.



ELECTRICAL APPLIANCES IN THE UNITED STATES.—According to authentic records there are now in the United States 3,351 electric plants and stations, operating every night 192,500 arc and 1,925,000 incandescent lights. There are also 459,495 horse-power of steam-engines devoted to electric lighting. The capital invested in the electric lighting companies during the past half year has been increased to the extent of \$42,210,100. In February there were in this country 34 electric railways, with 138 miles of track, operating 223 motor cars and utilizing 4,180 horse-power for stationary engines. Forty-nine new roads are now being built, having a total of 189 miles of track and to use 244 motor cars. There are also several motor factories, some of them employing as many as 1,200 men.

GENERAL NOTES.

SEVEN seems to have been the "sacred number" among the ancients. There where 7 days of creation; after 7 days' respite the flood came; the years of famine and plenty were in cycles of 7; every 7th day was a Sabbath, every 7th year is the Sabbath of rest; after each 7 times 7 years came the jubilee; the feasts of unleavened bread and the tabernacles were observed 7 days; the golden candlestick had 7 branches; 7 priests with 7 trumpets surrounded Jericho 7 times and 7 times the 7th day; Jacob obtained his wives by servitudes of 7 years; Samson kept his nuptials 7 days, and on the 7th day he put a riddle to his wife, and he was bound with 7 green withes and 7 locks of his hair were shaved off; Nebuchadnezzar was 7 years a beast; Shadrach and his two companions were cast into a furnace heated 7 times more than it was wont. In the New Testament nearly every thing occurs by sevens, and at the end of the sacred volume we read of 7 churches, 7 candlesticks, 7 spirits, 7 trumpets, 7 seals, 7 stars, 7 thunders, 7 vials, 7 plagues, 7 angels and a 7-headed monster.

MAKING PAPER FROM CORN HUSKS.

A foreign paper says that one of the best utilized waste products in Austria, resulting in the manufacture of large quantities of paper and cloth, is corn-husks. The husks are boiled with caustic soda in rotary boilers and are brought to a spongy condition, the fiber being loosened but filled with a glutinous substance which proves to be a perfect dough of corn meal, containing in a concentrated form all the pabulum originally contained in the husk. The glutinous matter is removed from the fibers, leaving them in the shape of a mass or chain of longitudinal threads interspersed with a dense mass of short fiber. A linen made from the long fiber is said to furnish a very good substitute for the coarser kinds of flax and hemp, and to be superior to jute, gunny cloth, coir and the like. The paper, for which mostly the short fibers are used, the long fiber constituting the material for spinning, is said to be stronger than papers of the same weight made from rags, its quality exceeding that of the best English drawing papers, and being especially adapted for pencil drawing, stenographic writing and water colors. Its durability is said to exceed that of paper made from any other material, and corn-husk parchment is not at exposed points destroyed by insects. If the gluten is left in the pulp, the paper can be extremely transparent, without sacrificing any portion of its strength. Again, the fiber is easily worked, either alone or in combination with rags, into the finest writing or printing papers. It also readily takes any tint or color and can be worked almost to as much advantage into stout wrapping papers of superior quality as into fine note and envelope papers.

ALLEGED MILLING POETRY.

THE MILL-WHEEL'S SONG.

Round and round the mill wheel goes
From early morn till night;
The mill-stream turns it as it flows
And then runs out of sight.
But there the old mill-wheel remains
And lets the mill-stream run;
And if it shines, or if it rains,
It sings at set of sun:
Drip, drip, drip, drip, drip, drip,
Many a wave from off of me will bear a gallant ship!
Drip, drip, drip, drip, drip, drip,
But for me the miller in the tavern could not sip!

Round and round I can not go
When the bleak winter comes,
And wind and snow do bravely blow;
But when the brown bee hums,
I hear the children laugh and play,
I hear the crackling corn,
And merrily, all through the day,
The gay wind blows his horn.
Turn, turn, turn, turn, turn, turn,
I make the fires in the cots upon the hillside burn!
Turn, turn, turn, turn, turn, turn,
When man is older than the world he need not live to learn!

Round and round I gaily turn
From spring till autumn flies;
My humble role I do not spurn
Nor pass my life in sighs.
I do the very best I can
And try to be content;
And since my modest life began
I've sung, when day was spent:
Swish, swish, swish, swish, swish, swish,
I clothe the goodwives' children, and I fill the goodwives' dish!
Swish, swish, swish, swish, swish, swish,
The corn I crack pays for the goodwives' meat and bread and fish?

Round and round I do not pass
When long days go to sleep;
Nor when the lads have each a lass
As down the road they creep!
I sometimes catch the whispers low
And sometimes catch a kiss,
As by the old red mill they go—
Next day sing like this:
Dash, dash, dash, dash, dash, dash,
Gaily now I turn the yellow corn to yellow cash!
Dash, dash, dash, dash, dash, dash,
Just listen to the song I sing as waters from me splash!

—John Ernest McCann, in "Collier's Once a Week."

THE MILL-BARD'S PEN'S SONG.

Back and forth the mill-bard's pen
Runs from the morn till night;
The ink bedaubs it black, and then
That pen runs like a fright,
But there the mill-bard dazed remains
And lets the ink-rill run:
His pen, with whip hand on his brains,
Sings thus at set of sun:
Mush, mush, mush, mush, mush, mush,
Many a pome from off'n me'll make some mortal tired!
Gush, gush, gush, gush, gush, gush,
But for me the editor from the sanctum would get fired!

Back and forth I always go,
E'en when wild winter hums,
And blizzards over earth do blow,
Or summer brings the bums;
I hear the editors rip and tear,
I hear the readers howl—
My old-mill poems make them swear
And gnash their fangs and growl!
Bosh, bosh, bosh, bosh, bosh, bosh,
I make the men in padded cells in yon asylum shriek!
Swash, swash, swash, swash, swash, swash,
The one who reads my old-mill pomes will die with a gibbering squeak!

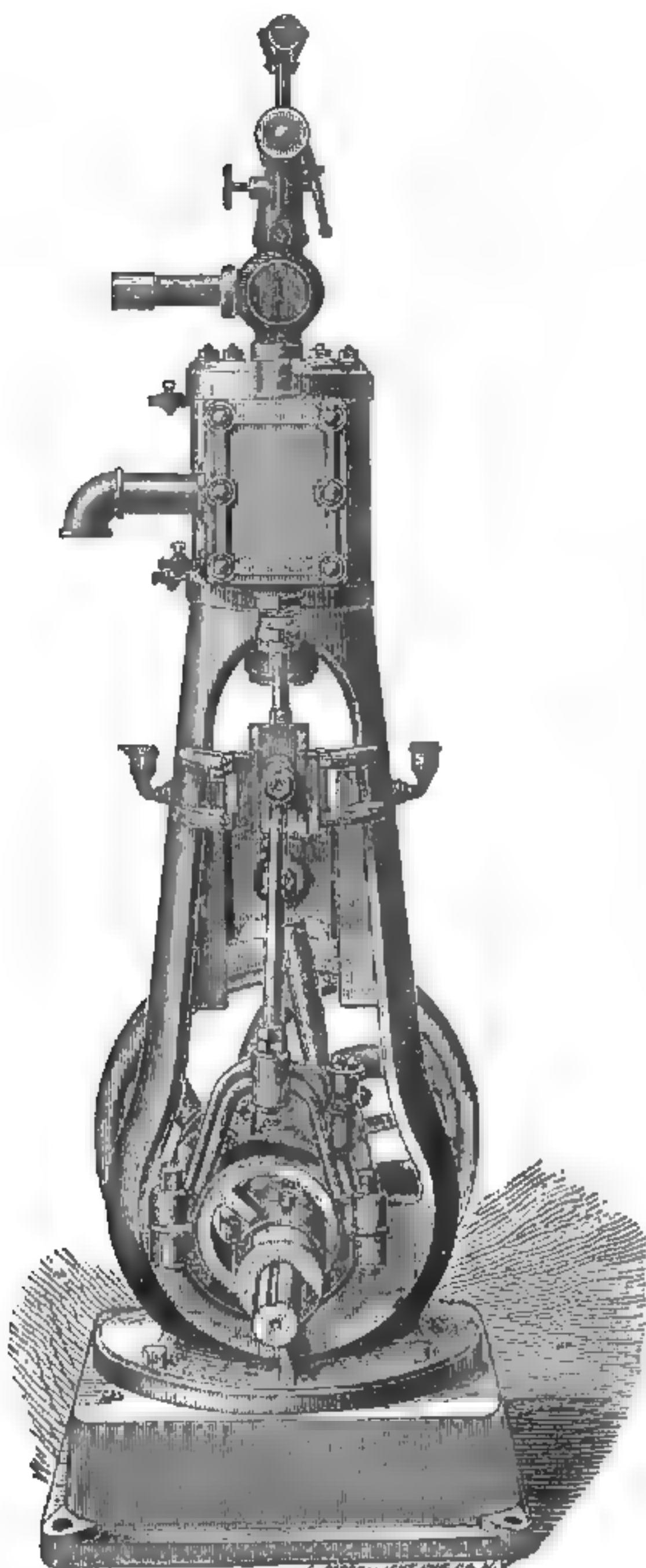
Back and forth I tireless crawl
From spring till autumn flies;
I do not hate to scratch at all
Nor rhyme stale mill-dam lies.
I do the very worst I can
And endways knock all rules.
E'er since the day my life began
I've scrawled for rhyming fools!
Slush, slush, slush, slush, slush, slush,
I fill the grave with martyrs, with idiots fill the earth!
Splosh, splosh, splosh, splosh, splosh, splosh,
The pomes on mills that I have scrawled have cast a cloud o'er mirth!

Back and forth I always pass
While sane men are asleep,
Just like a hungry long-eared ass
That doth for fodder creep!
I sometimes catch the muttered curse,
I oftentimes hear the hiss,
But still next day in maudlin verse
I sing, and sing like this:
Hash, hash, hash, hash, hash, hash,
Gaily now I turn the jet-black ink to rotten rhyme!
Splash, splash, splash, splash, splash, splash,
Just listen to the idiot slush I dribble all the time!

Mush, gush, slush, flush, splash!
Spash, whosh, swosh, slosh, gosh!
Smash, dash, hash, mash, splash!
Drip, lip, trip, sip, slip!
Turn, burn, squirm, bosh, whoop!
Writing old-mill poems is a scoop!

—Knot Ernest Bang, in THE MILLING WORLD, Once a Week.

AUTOMATIC VERTICAL ENGINES



Especially adapted for Small Electric Light Plants.
Perfect Regulation. Reversible Link Motion for Marine Use. Five to Fifteen Horse Power. Also manufacturers of

Lathes and Special Tools

Metal Patterns, Models and Machinery Built to Order.
Send for Prices and Specifications.

Lloyd & Sterrett
COR. 16TH AND STATE STS.,
ERIE, - - PENN.

EAGLE IRON WORKS,
DETROIT, MICH.

MANFRS. OF HIGH GRADE
BOILERS

HORIZONTAL, UPRIGHT
PORTABLE AND MARINE.

Oil Tanks & Smoke Stacks,
HEAVY SHEET IRON WORK.
CORRESPONDENCE SOLICITED.

PAYNE HIGH SPEED CORLISS ENGINE

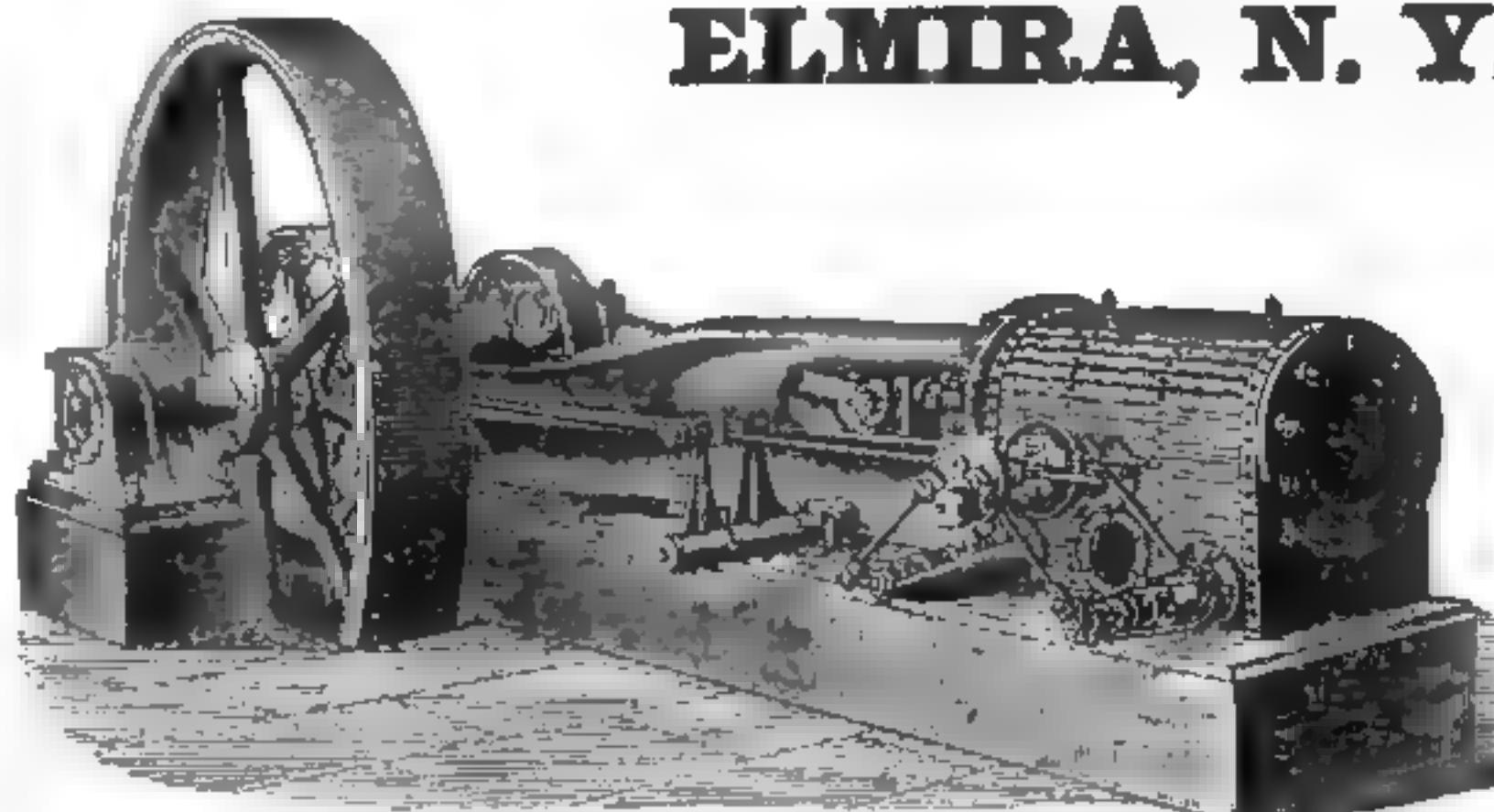
SHAFT GOVERNOR COMBINED WITH CORLISS WRIST-PLATE.

ECONOMY OF FUEL.

REGULATION EQUAL TO ANYTHING IN USE.

B. W. Payne & Sons,

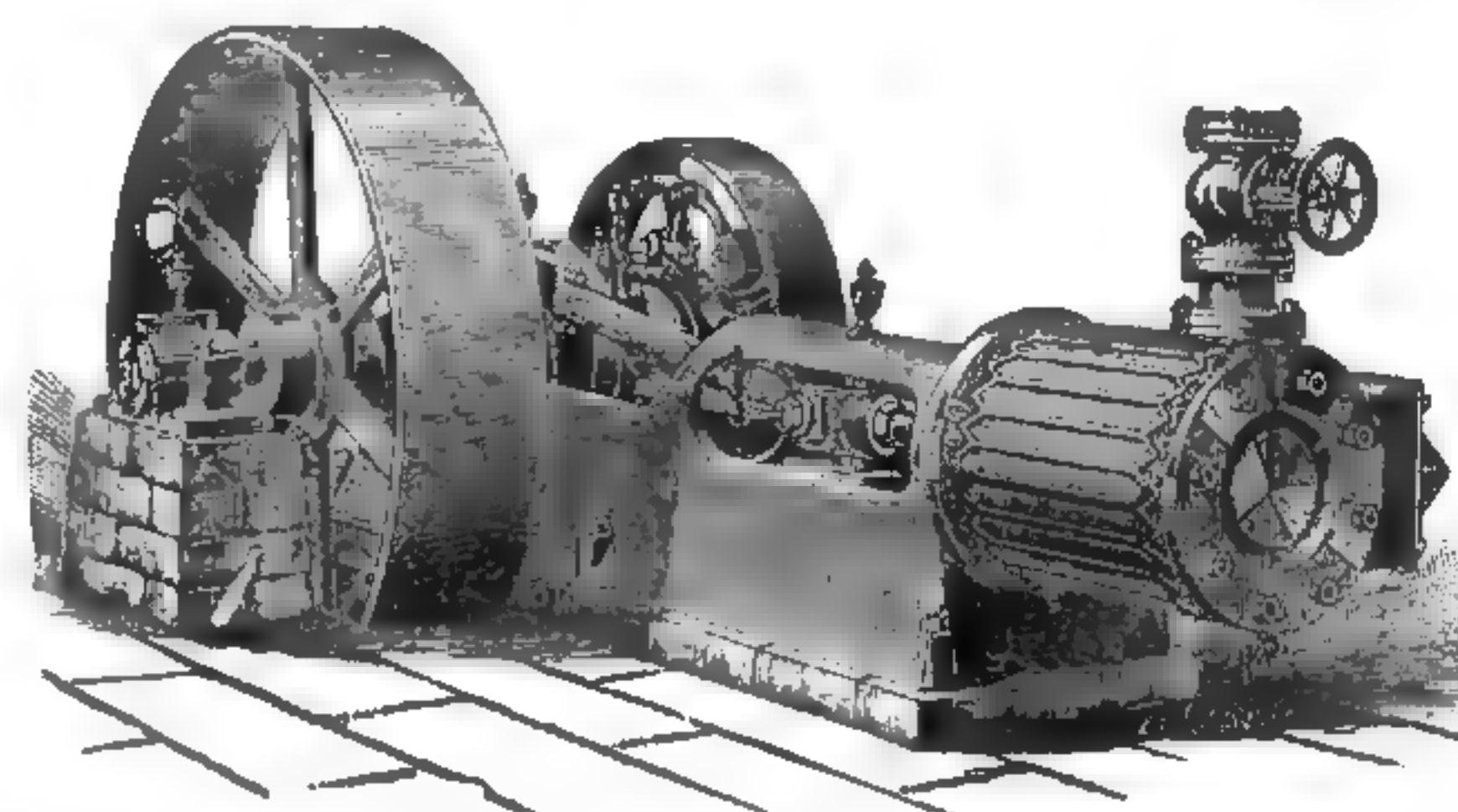
ELMIRA, N. Y.



10 S. Canal Street,
CHICAGO, ILL.
45 Dey Street,
NEW YORK.
Hill, Clark & Co.
BOSTON, MASS.

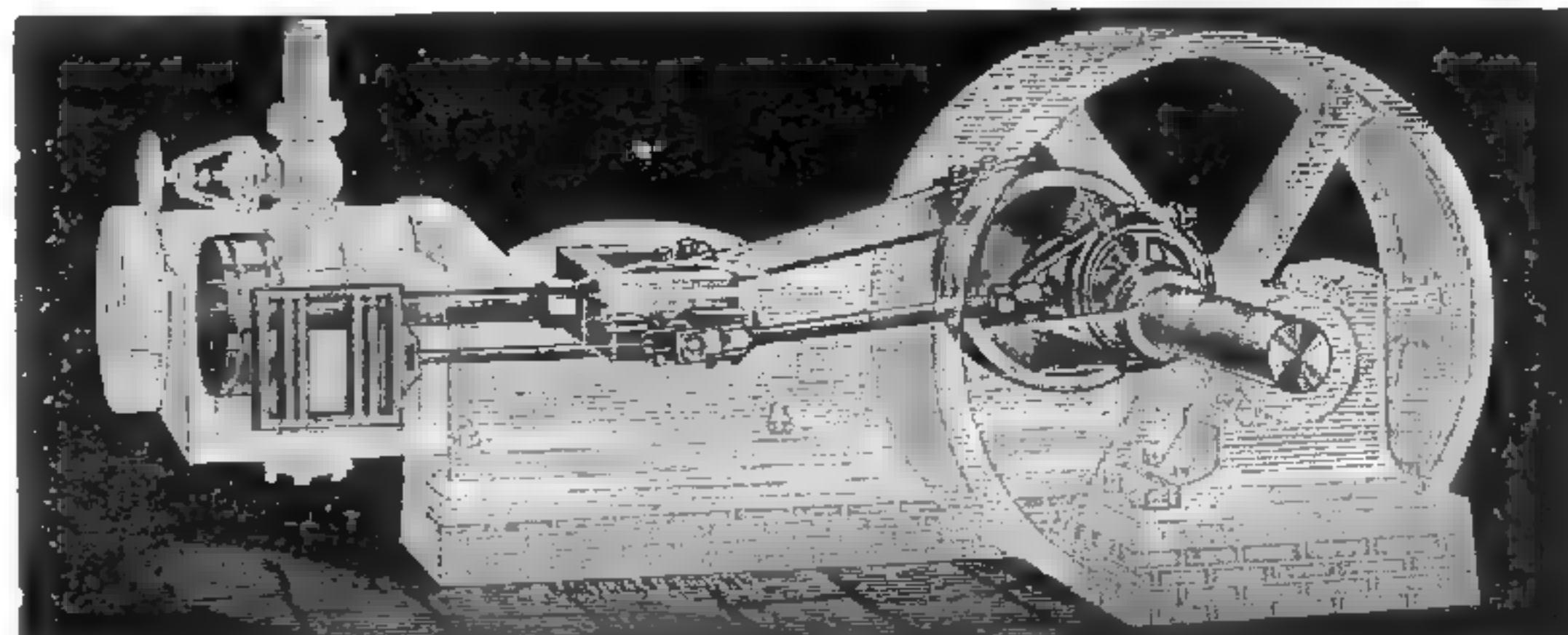
AUTOMATIC ENGINES FROM 2 TO 200 HORSE POWER.

Economic Power Plants



Especially Adapted to Electric Lighting and
WOOD-WORKING ESTABLISHMENTS
MANUFACTURED BY
VALLEY IRON WORKS, WILLIAMSPORT, PENN.

THE NEW PORTER HEAVY-DUTY ENGINE.



The Most Power for the Money, and All Things Considered the Most Economical.
For Illustrated Circular Address,

PORTER MANUFG. CO., LIMITED, SYRACUSE, N. Y.

NOTES & NEWS

Jos. W. Clark, miller, Albion, Mich., is dead.
 Mr. Tatum, miller, Fort Worth, Tex., is dead.
 Petrose Bros., Springdale, Ark., remodeled to rolls.
 Smock & Tyson, millers, Middleton, Ora., dissolved.
 S. W. Gilbert, Owensboro, Ky., builds a 50-barrel mill.
 J. Flegle & Son, Arlington, Ky., add a roller corn-mill.
 Whitney & Wilson, millers, Rochester, N. Y., dissolved.
 S. W. Kelley & Son, Easley, S. C., will build a flour-mill.
 H. J. Faison & Bro., Faison, N. C., will build a grist-mill.
 Sanborn & Terwilliger, millers, Pecatonica, Ill., dissolved.
 Morris & Martin, millers, Reed City, Dak., now E. B. Martin.
 The Henderson Milling Co., Sheffield, Ala., will add a corn-mill.
 H. Wehausen's flour-mill, Cedar Falls, Wis., burned; loss \$35,000.
 Oehler, Movins & Dawson, millers, Big Stone City, Dak., dissolved.
 Shaw's grist-mill, Milton, Ont., burned; loss \$7,000; insurance \$3,000.
 Jas. Peene's elevator, West Jefferson, O., burned; loss \$3,000; insurance \$1,500.

Ferguson Bros' flour-mill, near Nashville, Tenn., burned; they will rebuild at once.

J. V. McGahey, McGaheysville, Va., wants machinery for a new grist and corn mill.

Geo. E. Coxson's grist-mill, Gardenville, Md., burned; loss \$10,000; insurance \$5,500.

Neely & McCord, Pulaski, Tenn., will build a 60-barrel flour-mill at Lynnville, Tenn.

The Albany, Tex., Milling Co., will change their mill from the long to the short system.

Showers & Murphy, Madisonville, Ky., have formed a company to build a 40-barrel roller flour-mill.

During 1888 the port of New York exported 45,041,000 bushels of wheat, against 73,827,300 bushels in 1887.

The Case Mfg. Co., of Columbus, O., have an order from L. H. Bruns & Co., of Dayton, O., for 8 pairs of rolls.

The Case Mfg. Co., of Columbus, O., have an order from Jabez G. Kirker, of Louisville, Ky., for 3 scalping reels.

Geo. Fritchley, of Sandyville, O., is putting in 2 pairs of rolls furnished by the Case Mfg. Co., of Columbus, O.

The Decatur Land, Improvement & Furnace Co., Decatur, Ala., have points on a proposed 200-barrel flour-mill.

I. C. Plant & Son, Macon, Ga., have bought the Georgia Mills and will make it a 1,500-barrel corn-meal mill.

Turner & Oats' grist-mill and other property, Lumberton, Miss., burned; loss \$8,000; they rebuild at once.

The Case Mfg. Co., of Columbus, O., have orders from Essmueller & Barry, of St. Louis, Mo., for 12 pairs of rolls.

The Rockwall Milling Co., Rockwall, Tex., chartered with \$50,000 capital stock, want machinery to equip a mill.

Kelley & Lyle's flour-mill, Leavenworth, Kan., burned; loss \$100,000; insurance \$75,000; fire supposed to be incendiary.

W. R. Grace & Co., of New York City, have ordered two pairs of rolls from the Case Mfg. Co., of Columbus, O., for export.

W. F. Schilt & Co., of Bremen, Ind., are putting in rolls, flour-dressers and other machinery furnished by the Case Mfg. Co., of Columbus, O.

During the past seven months the exports of corn from the United States have increased 120 per cent. over the corresponding months a year ago.

The Case Mfg. Co., of Columbus, O., have an order from C. Barker, of Bernardsville, N. J., for 6 pairs of rolls, 4 flour-dressers and one centrifugal reel.

A man in western Dakota saw a blizzard born. It started on the top of a bare hill and was a ball of white fog no larger than his hat when he first saw it.

The Case Mfg. Co., of Columbus, O., have an order from L. H. Mills of Carthage, N. Y., for the necessary rolls and other machinery for a corn meal and feed mill outfit.

The Case Mfg. Co., of Columbus, O., have an order from J. C. Frazier, of Flint, Mich., for 8 pairs of rolls to be placed in the mill of Hastings, Down & Cherry, of Sparta, Mich.

John Vanderslice, of Garrettsville, O., has placed his order with the Case Mfg. Co., of Columbus, O., for the necessary rolls and other machinery required to remodel his mill to the Case short system.

The Case Mfg. Co., of Columbus, O., have been awarded the contract of Childs & Tucker, of Somerset Center, Mich., for the necessary rolls and other machinery for a full roller mill on the Case short system.

The Case Mfg. Co., of Columbus, O., have been awarded the contract of H. Resener & Co., of Cheshire, O., to remodel their roller mill to the Case system, using a full line of the Case flour-dressers and other machinery required.

During the 30 weeks ended February 11 the wheat exports from the Pacific coast ports of the United States were 24,190,000 bushels, and from the Atlantic ports 33,758,000 bushels, a total of 57,948,000 bushels. That is not altogether bad for a "failure" crop of wheat, after all.

A Minneapolis dispatch of February 27 says that none of the millers there are consigning flour abroad excepting Pillsbury, and that he is not consigning much. The Washburn people sold thirty car-loads of flour in London on Feb. 26 at the best prices of the season, and had a bid on Feb. 27 for ten cars more at last week's prices.

Paragraph from St. Louis circular: "Minneapolis advices say there is not enough wheat in store there and in the northwest to keep their mills running the remainder of the season, and they can not afford to stop and so lose their customers. Query: will they substitute winter wheat or order back some of their consignments of flour said to be in need of purchasers abroad."

The claim is advanced that the association of spring-wheat millers represents an actual capacity of 55,600 barrels a day. For the whole year that would mean a capacity of 20,294,000 barrels, considerably over a third of the flour consumed in the United States. Probably a liberal application of the jack-plane to those individual "capacities" would have a wholesome effect on the aggregate capacity of the mills represented in the spring-wheat association.

Following is a table of the wheat yield officially reported during each fiscal year, being the crop harvested in the previous calendar year, and the acreage officially reported, for California, Oregon, Washington and Arizona, called for brevity "the Pacific coast," and also the quantity of wheat and flour exported, less the small quantities imported, according to the official reports for all the customs districts on the Pacific:

	Yield.	Net Exports		
		Bushels.	Acres.	Wheat. Bush. Flour. Bbls.
1880.....	38,555,466	2,368,086	21,262,638	646,548
1881.....	47,911,020	2,949,610	24,700,810	976,745
1882.....	46,479,000	3,259,200	43,004,486	1,873,097
1883.....	50,743,900	3,658,500	27,712,908	1,443,867
1884.....	52,849,300	3,775,310	22,645,964	1,621,744
1885.....	64,175,000	4,565,840	32,111,027	1,532,151
1886.....	48,228,000	4,144,356	26,074,441	1,396,299
1887.....	55,155,000	4,456,780	24,857,261	1,402,400
1888.....	55,177,000	4,172,321	20,739,480	1,267,250
1889.....	52,175,000	8,755,211

BOOKS AND PAMPHLETS.

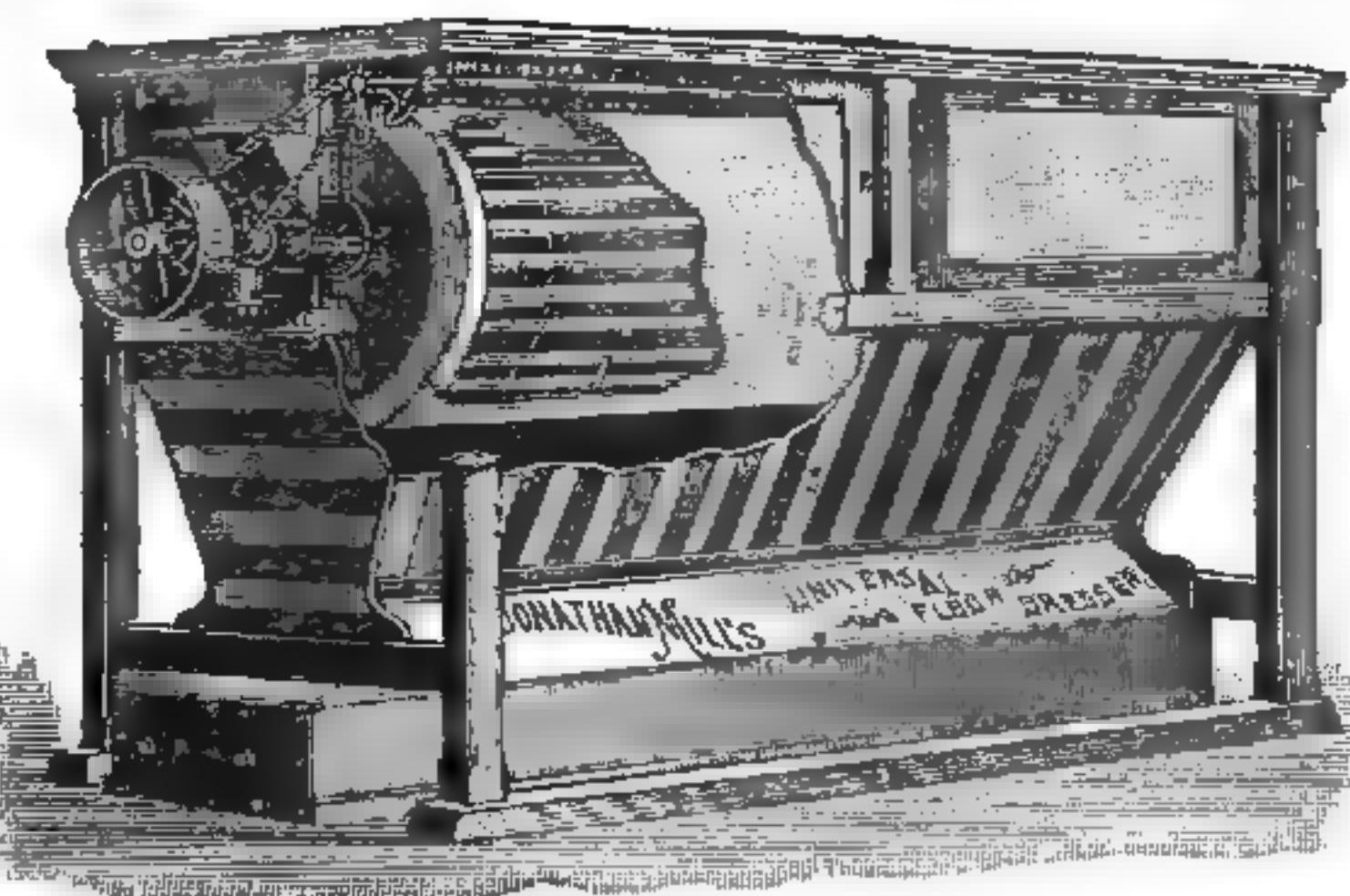
Messrs. W. J. Clark & Co., manufacturers of the famous "Salem" bucket, Salem, Ohio, have sent us a unique blotter, representing the "Salem" as "Still On Top."

The number of *Good Housekeeping* for March 2 is an unusually fine and rich one. It contains the third article on "Table Etiquette," by Mrs. C. K. Munroe; "The True Home Life," by Pauline A. Hardy; "Japanese Folk Lore," by Helen S. Thompson; the third installment of "From Soup Tureen to Pudding Dish," by Maria Parloa; the eighth article on "Flowers," by Esther Paige; "Some Queer Dishes," by E. L. H. W.; "The Hair," by Clara G. Beirne; "A Cookery Exhibition in Paris," by Helen Campbell, and poems and any number of other good things by other well-known writers. Address Clark W. Bryan & Co., Springfield, Mass. Single copies 10 cents. Yearly subscription \$2.50.

In the March *Century* the most timely essay is that on the "Rules of the House of Representatives," by the Republican leader, Hon. Thomas B. Reed, of Maine. Another timely essay is Dr. Edward Eggleston's review of James Bryce's already famous work on "The American Commonwealth," under the title of "A Full-Length Portrait of the United States." In the same category of special timeliness should be mentioned a curious article on "The Use of Oil to Still the Waves," by Lieutenant W. H. Bechler, of the Office of Naval Intelligence, United States Navy Department. The present installment of the *Life of Lincoln* is entitled "The Edict of Freedom," and completes the story of emancipation. The frontispiece of the number is a portrait of the Grand Lama of the Trans-Baikal, from a photograph given to George Kennan in exchange for his own. In fiction there is begun a three-part story by Mrs. Mary Hallock Foote, entitled "The Last Assembly Ball: A Pseudo-Romance of the Far West." Mr. Edwards, the author of "Two Runaways," in "The Rival Souls" tells a story in a new vein, and without dialect; and Mr. Jessop, in "The Correspondence of Mr. Miles Grogan," gives a study of the progress of a New York politician from a liquor saloon to a residence in Montreal. "The History of Alix de Morainville" is another "Strange True Story," edited by Mr. Cable. In the same number of the *Century* Mrs. van Rensselaer and Mr. Pennell present the history and appearance of old "York Cathedral" just at the time when the plans of a cathedral for New York are being decided upon. In the series of "Old Italian Masters" Mr. Stillman writes about Gaddo and Taddeo Gaddi, and Mr. Cole engravings "Music," by Taddeo Gaddi. In Charles de Kay's illustrated Irish series "Christian Ireland" is the subject for this month. The fifth of Mrs. Mary Hallock Foote's pictures of the Far West is entitled "The Choice of Reuben and Gad." "Dutch Painters at Home" is illustrated and described by Mr. and Mrs. Harry Chase. Gustav Kobbe writes of "Amateur Theatricals," and Mr. Charles Barnard tells of "Something Electricity is Doing." There are poems by James Whitcomb Riley ("Down to the Capital"), Frank Dempster Sherman, Florence Earle Coates, L. M. S., Herbert D. Ward, Charles Henry Lueders; and in "Bric-a-Brac" by Tudor Jenks. Topics of the Times are "Election Laws for Congressmen," "The English Language in America," and "Lincoln's Disinterestedness." Marion J. Verdery, in "Open Letters," writes of the South under the Harrison Administration, from a Southern point of view.

MILLERS

our Jonathan Mills **UNIVERSAL FLOUR DRESSER.** The best machine on the market. Giving satisfaction everywhere in the best mills in this country. Thousands in use. We carry a full line of Crown Silk anchor Bolting Cloth and Grit Gauzes.



WE SOLICIT YOUR TRADE.

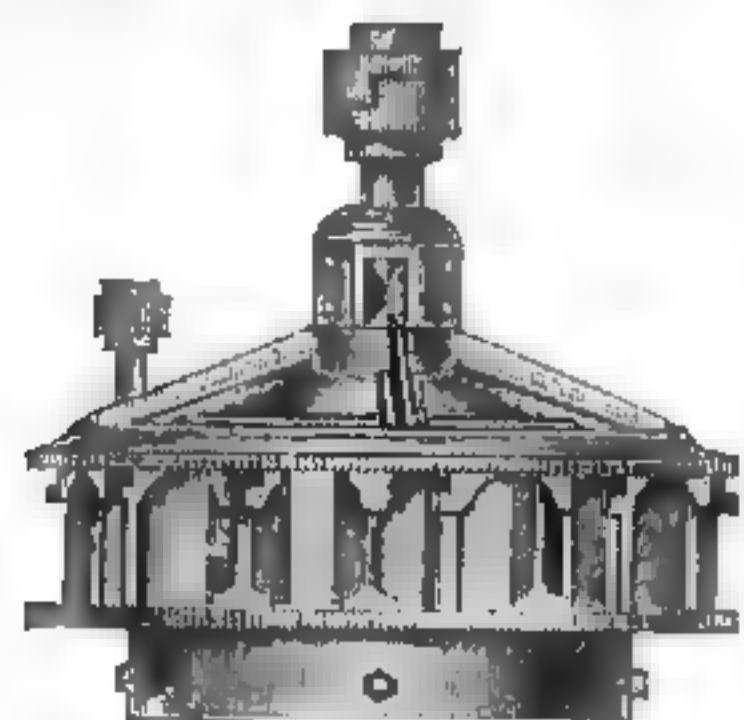
The Jonathan Mills Mfg. Co., Cleveland, Ohio, U. S. A.

THE IMPROVED "SUCCESS"

THIS WHEEL IS BOTH DURABLE AND CHEAP

PERCENTAGE: {

Full Gate.....	86.20
½ Gate.....	86.07
¼ Gate.....	81.95



SEND FOR PAMPHLET TO

S. Morgan Smith, York, Pa.

ATTENTION MILLWRIGHTS!

A BOOK YOU ALL WANT.

LEFFEL'S CONSTRUCTION of MILL DAMS
AND
BOOKWALTER'S MILLWRIGHT & MECHANIC

A STANDARD WORK.

This practical work of 288 pages gives with full illustrations and complete detail how to build or repair all kinds of mill dams.

PRICE FIFTY CENTS.

Or will be sent with a copy of "THE MILLING WORLD" for one year (postage prepaid) for \$1.25.
—ADDRESS—

McFAUL & NOLAN,
DRAWER 203, BUFFALO, N. Y.

PLEASE mention THE MILLING WORLD when you write to advertisers. It will pay you to do this.

THE STEVENS PORTABLE MILLS

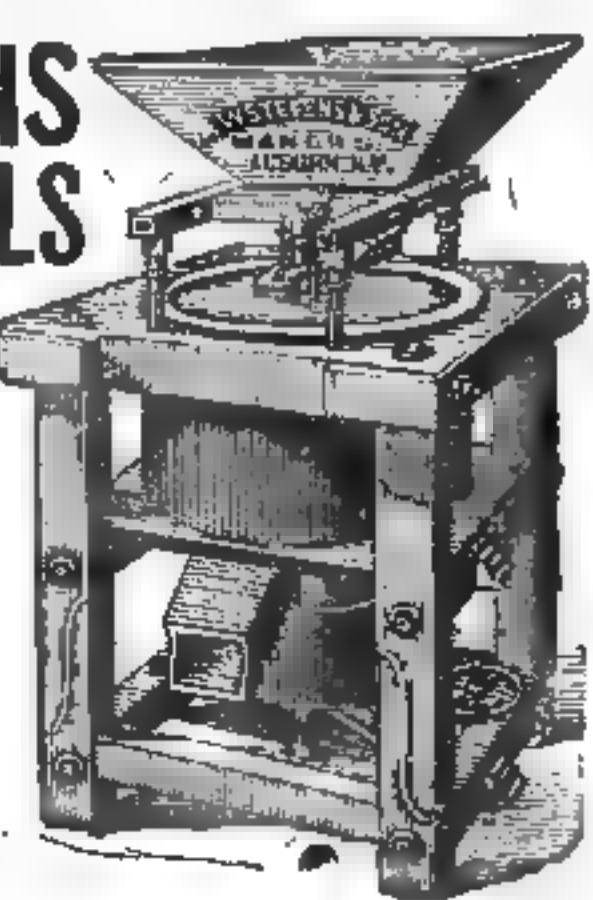
For CORN and FEED GRINDING

Genuine French

BUHR STONES

Power Corn Sheller
Prices Below the Lowest

A. W. STEVENS & SON
AUBURN, N. Y.
Mention this paper.



of the United States and Canada write us for our new pamphlet and revised price list of

the Jonathan Mills **UNIVERSAL**

FLOUR DRESSER. The best machine on the

market. Giving satisfaction everywhere in the best mills

in this country. Thousands in use. We carry a full line

of Crown Silk anchor Bolting Cloth and Grit Gauzes.

Time is Money!

We execute three-fourths of all orders of day received, for we have large stocks and large facilities. You will lose no time or money by delays if you order of

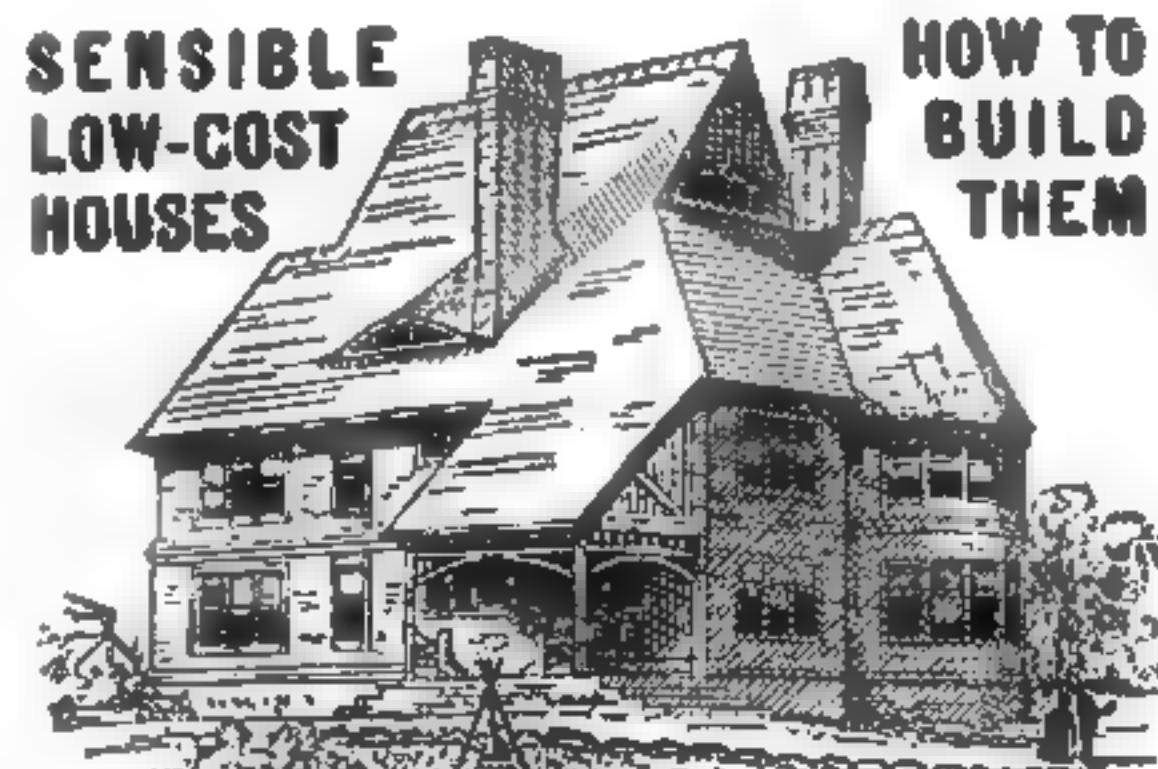
The Cincinnati Corrugating Co.
141 EGGLESTON AVENUE,
CINCINNATI, OHIO.



WHEN WRITING TO ADVERTISERS

PLEASE MENTION

THE MILLING WORLD



A large Atlas, giving illustrations and full descriptions of 56 desirable modern houses, costing from \$800 to \$1500. Every detail profusely illustrated, showing many valuable original ideas. Shows what to do and what not to do. Houses adapted to all climates described. The latest, best, and only cheap work published. Sent by mail on receipt of \$1.00.
NATIONAL ARCHITECT'S UNION, PHILA., PA.

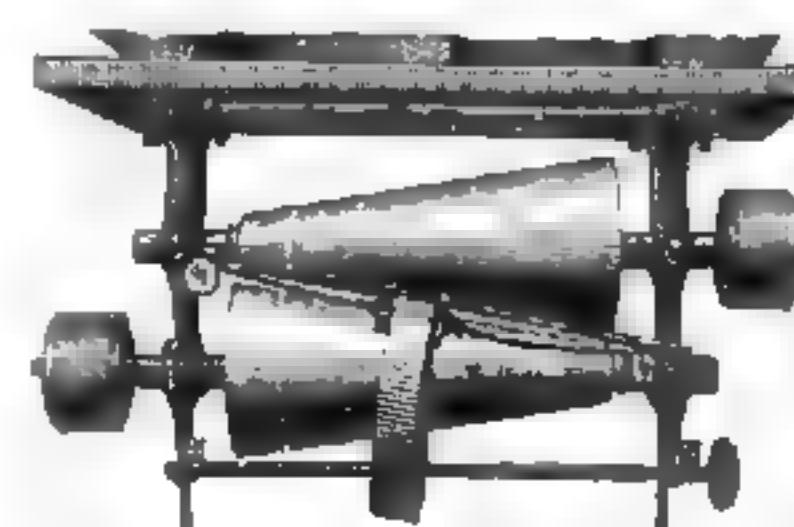
"Cooper on Belting"

A Treatise on the Use of Belting for the Transmission of Power. With illustrations of approved and actual methods of arranging Main Driving and Quarter Twist Belts, and of Belt Fastenings. Examples and Rules in great number for exhibiting and calculating the size and driving power of belts. Plain, Particular and Practical Directions for the Treatment, Care and Management of Belts. Descriptions of many varieties of Beltings, together with chapters on the Transmission of Power by Ropes; by Iron and Wood Frictional Gearing; on the Strength of Belting Leather; and on the Experimental Investigations of Morin, Briggs, and others, for determining the Friction of Belts under different tensions, which are presented clearly and fully, with the text and tables unabridged. By JOHN H. COOPER, M. E. Second Edition. One vol., demy octavo. Cloth, \$3.50. Sent post-paid on receipt of price. Address,

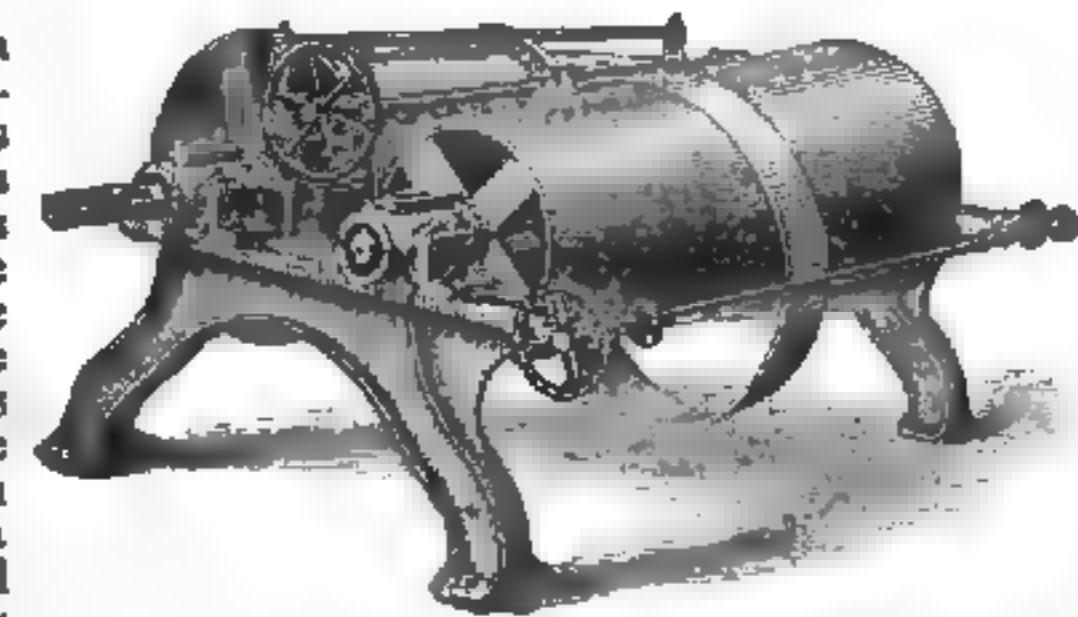
McFAUL & NOLAN, BUFFALO, N. Y.

THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."



fluctuating. All sizes made from $\frac{1}{2}$ Horse Power to 50 Horse Power. SEND FOR ILLUSTRATED CATALOGUE.



EVANS FRICTION CONE CO., 85 Water St., BOSTON.

EUROPEAN ECHOES.

RUSSIA reports some 40 steamers getting away from Odessa, but their cargoes and destination are not given.

THE number of flouring-mills in England is estimated at about 7,000, with a total capacity of about 51,000,000 barrels per annum, or one-fourth larger than the total requirements of the country.

A PARIS report of Feb. 11 says: "The exaggerated decline of last week has brought a reaction, and in the last two or three days quotations have advanced 2 francs per sack. French farmers are slowing off from their wheat deliveries."

A LONDON letter says that the winter in Russia has been marked by severe frosts, without the usual snow protection to wheat, and the plant must have suffered badly, while it also appears to be an undisputed fact that the acreage put under wheat cultivation for the next crop is only about half that of last year.

ODESSA correspondence on the British shipping in the Black Sea says: The British steam-carrying trade in these waters continues to show steady and enormous increase. During last year no fewer than 878 British grain-laden steamers, compared with a total of 749 in 1887 and 567 in 1886, cleared from this port.

OFFICIAL reports at Paris from the prefects of the departments are published stating that the winter sowings were effected under very favorable conditions in 48 departments, good in 32 and fair in 7. The aspect of the crops is very good in 43 departments, good in 41, and fair in one department. The acreage of land sown is greater than last year in 27 departments, equal in 55, and less in 5.

SAYS the London "Miller" of February 11: On Thursday with 2,143,000 quarters wheat on its way, there is found the wonderful disproportion of California's supply, 1,500,000 quarters, against the rest of the world's supply, 600,000 quarters! Attention should be given to this point, because all the world wants wheat of good color and thus probably the Pacific shipments will be a good deal whittled away before they get inside English mills. "Preference given to cargoes with Continental options" is a paragraph of Thursday's list, and it shows the side view of this subject. France, they say, still wants 4,000,000 quarters of imported wheat before her next harvest.

SAYS the London "Miller": With respect to India, we have some idea that the moderate exports of 1887 and 1888 will be exceeded in 1889. It is an idea only, for the harvest prospects do not justify it. We fancy that during the past two years there has been in India some slight increase in farmers' holdings. These and a slightly higher price in Europe, together with the increased advantage in exchanging corn for gold, may set free, and the trade between England and India in wheat may without great difficulty rise from two to three million quarters. The shipments of wheat from India for the month of January were about 250,000 quarters. This is not a large quantity, but it is liberal for the time of year, and also considering the condition of the grain. Moreover, the United Kingdom has been by far the largest purchaser, whereas in other seasons the continent has claimed nearly an equal share. Australasia, on the other hand, will do next to nothing for England in 1889. The total crop yield is put at 14,000,000 bushels for Australia, at 200,000 bushels for Tasmania, and at 6,000,000 bushels for New Zealand. This gives a grand total of 20,200,000 bushels, all of which will be needed for home use, even if some importations from India and North and South America have not in the course of the year to be recorded. The formation of a syndicate of South American steamships threatens at least delay in the forwarding of wheat from the Argentine Republic and Uruguay, for the prices quoted on the European exchanges are not high enough to bear

heavy freight charges and yet remunerate the growers in La Plata and the adjacent states. The harvests, too, suffer from the slow reaping, carrying and securing of the grain. Workmen are very scarce, and the task under the semi-tropical sun is so tremendous that freshly imported labor is hardly available. This is a consideration which new countries, and those emigrating thereto, seldom consider, the time, namely, necessary for human acclimation. South America has a great future; of that we are assured; but it will not admit of hurrying, and where sanguine estimators speak glibly of 1,500,000 quarters of wheat leaving South American ports for the United Kingdom in 1889, we are content with advising our readers to expect 750,000 quarters.

SOME VARIATIONS IN WHEAT.

Two German chemists have recently made some researches into the variations in the composition of wheat consequent upon differences of season and climate. They have carefully analyzed a large number of samples of grain from England, India, Russia and other countries, chiefly in order to ascertain the percentages of nitrogenous substances or albuminoids and starch. European wheat is said to contain an average 13.9 per cent. of the former, while Indian grain contains only 12.66 per cent. More generally it is found that the highest proportion of albuminoids and gluten occurs in grain which has been rapidly matured, in which the respective percentages would be 18.17 and 18.08. When ripening does not take place within 130 days the amount of albuminoids is reduced to 12.47 and the gluten forms to the extent of 9.22 per cent. Small grain is always characterized by a high percentage of gluten, while a large-grained sample will be especially rich in starch. It thus appears that a rapidly matured crop will be more nutritious than one which is ripened late. Moreover, the greater the proportion of gluten in the flour the more bulky will be the dough, so that flour from quickly ripened corn ought to make lighter pastry. For baking purposes the presence of a considerable quantity of starch is important, so the best bread will be that which is made from large-grained wheat gathered in an early harvest.

COTEMPORARY COMMENT.

A fairy story is afloat to the effect that millers have bought contracts for the delivery of 14,000,000 bushels of No 1 hard in Minneapolis during the month of May. Nobody believes the preposterous yarn.—*Chicago Daily Business*.

If the northwest situation is as strong as some assert it to be, other markets will come into the line with ours and enable holders of wheat to float out without loss, and possibly with a good profit.—*Minneapolis Market Record*.

Some millers are queer birds. We have in mind one just at this time who was the owner of a very large quantity of cheap wheat. At one of the association meetings he asked that the price for flour be reduced so that he could unload larger quantities of his wheat. He said that it cost him considerably less than it was then worth and that he could afford to sell the flour at considerably less than the market price and wanted the privilege of doing it. Now while every one will recognize this as being altogether absurd, it is true that many millers are not altogether free from proceedings of this kind. Not a few will sell flour cheaper when they have cheap wheat on hand than if they had to buy it at the regular market price. This certainly is not business. Selling wheat for less than it is worth is altogether irrational. It would be much better sense to sell the wheat for all it is worth than to sell it for less than it is worth in the shape of flour.—*The Millstone*.

The March number of *Godey's Lady's Book* is as breezy as the month for which it is issued. The frontispiece is well executed and aptly named "The Coquette." The colored and black fashions show the latest novelties for the early spring season, while all lovers of fancy work will gladly welcome the numerous beautiful designs illustrated. Among the literary pages "Hollywood," by Griffith Wilde, is well illustrated. "Silver or Postage Stamps," by Margaret Montgomery, shows the present craze for collecting small sums for charities. The serials continue in interest, several poems, short stories, household, fashion and work articles complete an attractive number.



RELIANCE OIL & GREASE CO., CLEVELAND, O.,

— MANUFACTURERS OF —

Finest Lubricants for Milling Plants. A Challenge to the World.

WRITE US.

"VALVE OLEINE"—675 Degrees Fire Test, Cylinder Oil.

"RUSSIAN"—Engine and Machine Oil.

"CHIEF"—Roller Mill Lubricant.

"ANCHOR"—Roller Mill Grease.

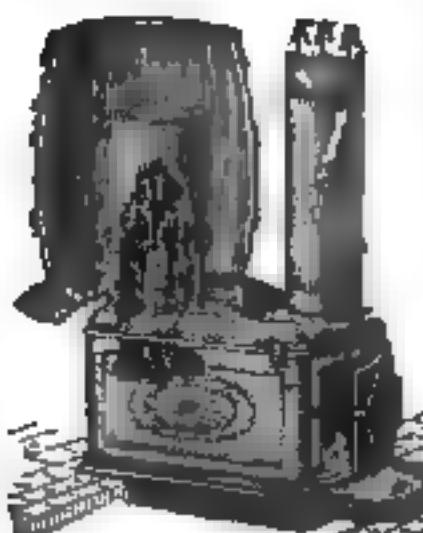
"NIAGARA"—Belt Grease.

SPECIAL
HIGH GRADE
PRODUCTS

"CHELSEA"—Scale Solvent, Best on Market.

Agents Wanted.

FREE SAMPLES, CATALOGUE, AND ALL INFORMATION.



MOORE'S
PATENT
BARREL HEATER.

For all
kinds of coo-
perage. Thousands
in use in all parts of the
U. S. Send for Circular.

JOLIET STOVE WORKS. JOLIET ILL.



STANDARD SCIENTIFIC BOOKS.

THE PUMP CATECHISM—By Robert Grimshaw, M. E. A Practical Help to Runners, and Makers of Pumps of any kind. Just out. In cloth, one volume. Price postpaid. \$1.00

A TREATISE ON FRICTION AND LOST WORK IN MACHINERY AND MILL WORK—By Robt. H. Thurston. Containing an explanation of the Theory of Friction and an account of the various lubricants in general use, with a record of various experimenters to deduce the laws of Friction and Lubricated Surfaces. Copiously illustrated. 8vo., cloth. \$3.00

KNIGHT'S MECHANICAL DICTIONARY—By Edward H. Knight, A.M., LL.D. A book for all persons who make, buy, sell, use or want to know anything about tools or machines, now complete in four volumes, bringing the record down to this time. Sheep; 4 volumes. \$31.00

THE AMERICAN HOUSE CARPENTER—By R. G. Hatfield, (1880). A Treatise on the art of Building, comprising styles of architecture, strength of materials, theory and practice of construction of floors, framed girders, roof trusses, stairs, doors, windows, mouldings and cornices. Numerous fine wood engravings. 8 vo., cloth. \$5.00

A MANUAL OF CATTLE FEEDING—By H. P. Armsby, Chemist of the Connecticut Agricultural Experiment Station. With plates; 16 mo., cloth. \$2.50

A TREATISE ON TOOTHED GEARING—By Howard J. Cromwell, 12 mo., cloth. Complete Instructions for Designing, Drawing and Constructing pur. Wheels, Bevel Wheels, Lantern Gear, Screw Gear, Etc., Etc. \$2.00

STEAM ENGINE CATECHISM—By Robert Grimshaw. A Series of thoroughly practical questions and answers arranged so as to give to a young engineer just the information required to fit him for properly running an engine. 16 mo., cloth. \$1.00

THE WINDMILL AS A PRIME MOVER—By A. R. Wolff, M. E. Comprehending everything of value relating to windmills, their use, designs, construction, etc. With many fine illustrations. 8 vo., cloth. \$3.00

BOOKKEEPING & ACCOUNTANTSHIP—By Thomas Jones. For self-instruction or office reference. Based on twenty years experience in teaching. 8 vo., cloth. \$2.50

THE ARCHITECT AND BUILDERS POCKET-BOOK—By F. E. Kidder. With original tables and valuable information for architects, builders, engineers and contractors. Fully illustrated. In Pocket-Book form. Morocco. \$3.50

Any book extant at lowest prices. Great inducements to parties collecting libraries.

McFAUL & NOLAN, BUFFALO N. Y.

WIRE BOLTING CLOTH—STEEL, BRASS & TINNED



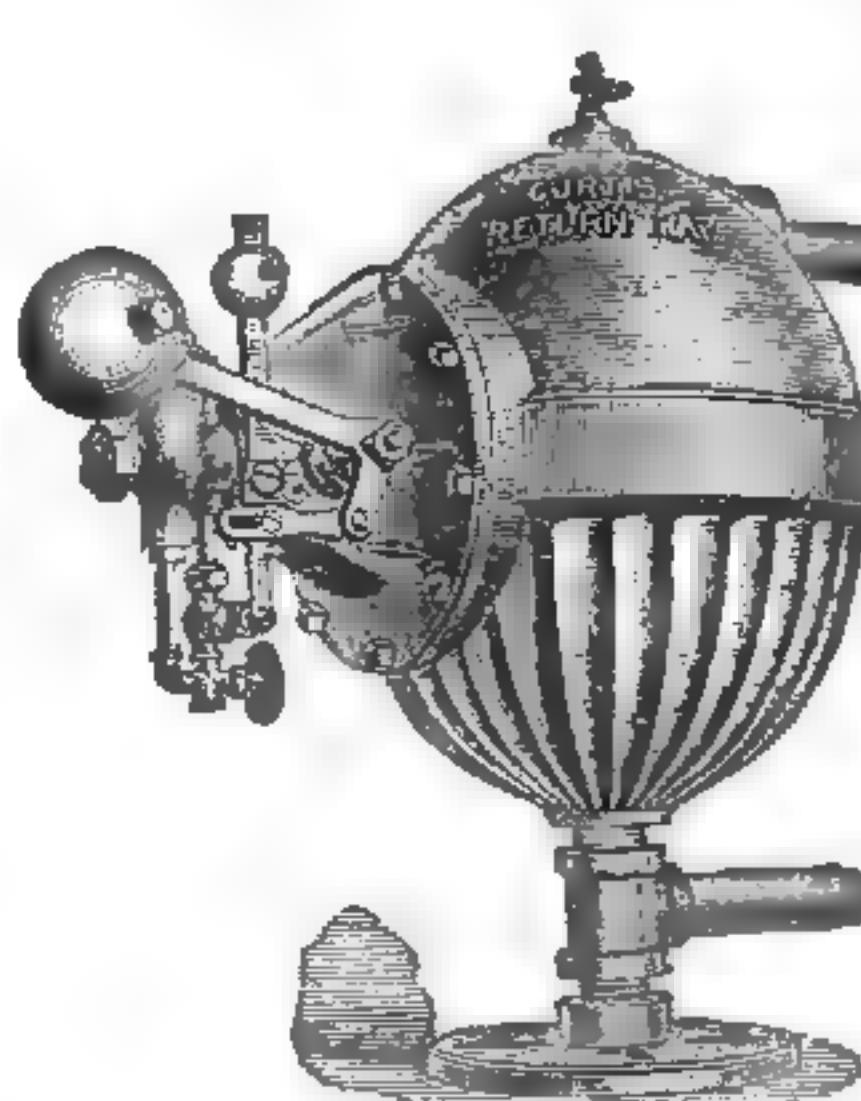
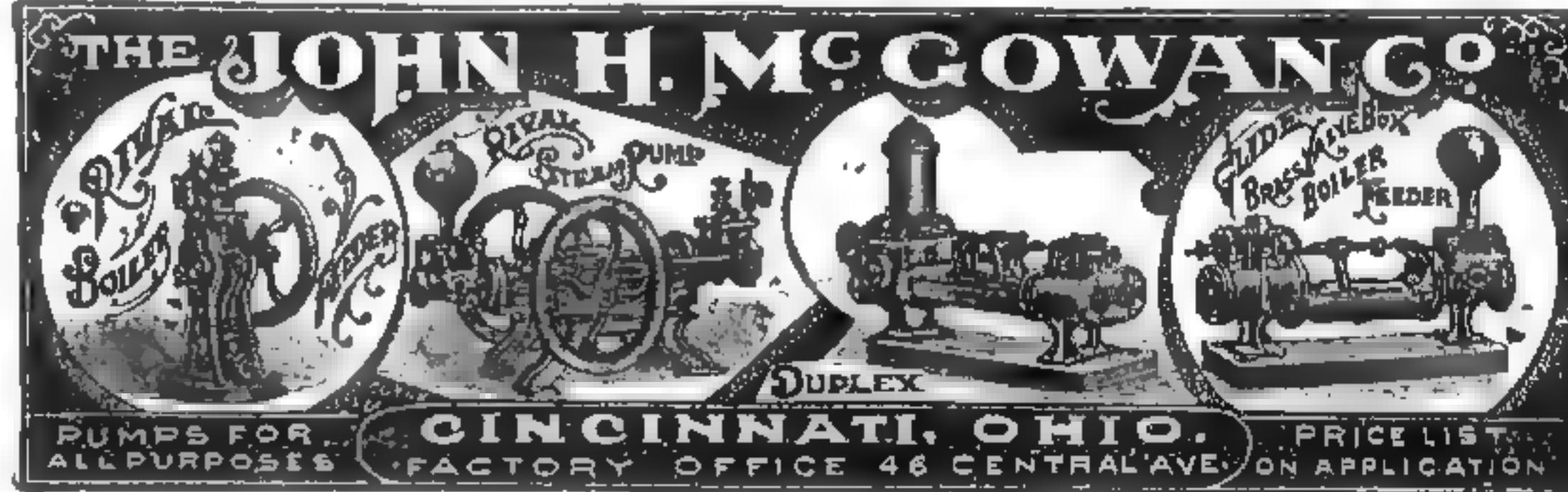
[ESTABLISHED 1844]
Exclusive Manufacturers of the
"ACME" STEEL TEMPERED

BATTERY & BOLTING WIRE CLOTH.
Also manufacturers of Bran Duster Cloth, Plated Wire Mill Screen Cloth, Smut Cloth, Brass and Copper Wire Cloth. A full line constantly on hand. Send for samples and price lists.

Brooklyn Wire Cloth Works.

NO. 107 JOHN STREET, NEW YORK.

CLOTHES MADE UP WITH PATENT BINDING WHEN DESIRED.



THE CURTIS

PATENT RETURN STEAM TRAP.

It is noiseless, positive, rapid, will return all condensation back into the boiler, and works equally well in connection with reduced pressure or exhaust steam, also when the return is below the water line of the boiler.

THE CURTIS REGULATOR COMPANY,
NO. 74 BEVERLY ST., BOSTON, MASS.

GENERAL AGENCIES.

NEW YORK, 109 Liberty st.

CHICAGO, 218 Lake st.

PHILADELPHIA, 2035 N. Front st.

ST. LOUIS, 707 Market st.

MINNEAPOLIS, 210 S. Third st.

NEW ORLEANS, 21 Union st.



OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., March 2, 1889.

On Saturday of last week, in spite of better foreign markets and good cash demand abroad, the markets were dull and easy. February wheat closed at 98½c. and May and June at \$1.01½ in New York. Options 1,000,000 bushels. In Chicago February closed at \$1.06½, March at \$1.08½ and May at \$1.09½. In New York February corn closed at 44c. and oats at 30½c. Wheat flour was quiet for home trade. There was some export inquiry. Other lines showed no changes.

On Monday the markets were less active, easier and irregular, on better California crop reports and "bearing by the Chicago bull clique." February wheat in New York closed at 97½c. Options 874,000 bushels. Chicago closed a cent below Saturday's figures. February corn closed at 43½c. and oats at 30½c. Wheat flour was featureless and unchanged, with an improved demand for No. 1 and fine spring wheat for England. The minor lines were featureless.

On Tuesday the markets were dull and irregular. A raid on wheat broke that line 1c. February wheat closed at 97½c. Options 2,100,000 bushels. February corn closed at 43½c. and oats at 30½c. Wheat flour was dull and unchanged, with winters firmly held and millers raising limits in view of the trouble they have of getting wheat in the West. Prices ruled firm. The minor lines were featureless. On Wednesday the markets were dull, unsettled and featureless. February wheat closed in New York at 97½c. Options 2,000,000 bushels. February corn closed at 43½c. and oats at 30½c. Chicago grain stocks in vessels and elevators were reported as follows: Contract wheat, 3,587,000 bushels; corn, 1,091,000 bushels contract; 430,000 bushels in vessels; oats, 1,948,000 bushels; total all kinds, 4,480,000 do wheat, 3,507,000 do corn, 3,699,000 do oats; there are also 1,100,000 bushels oats in outside houses. Wheat flour was dull but steady at top prices on light receipts, while buyers held off because of the weakness in wheat.

On Thursday the markets were without activity or interest. In New York March wheat closed at 97½c., April at 99½c., May at \$1.00½ and June at \$1.00½. Options 750,000 bushels. In Chicago March wheat closed at \$1.04½, May at \$1.07½ and June at \$1.01½. In New York March corn closed at 44c. and oats at 30½c. Buckwheat grain was nominally 50c. Rye grain was dull and weak at 50@53c. for State, Jersey and Pennsylvania on track and 54@55c. in elevator, with No. 2 nominally 55@56c. afloat. Barley was in small demand at the following quotations: Two-rowed State, 70@73c.; six-rowed, 72@75c.; extra No. 2 Canada, 75@77c.; No. 1, 80c. and ungraded, 70@80c. for the whole range; but all are nominal figures. Malt was dragging at the following quotations: \$2.07@1.10 for city, \$2.00@1.05 for country, 95c@\$1.00 for six-rowed and 90c. for two-rowed asked. Mill-feed was dull at the following quotations: 40, 60 and 80-lb, 70@72½c.; 100-lb, 85c.; sharps, 85@95c.; 80c. for rye; screenings, 50@80c.; oil meal, \$2.45@2.50; cotton meal, \$1.25@1.28; barley meal, 90c. nominally for the latter.

Wheat flour was dull for home and foreign trade, in the latter case because of scarce ocean freights. The quotations were:

SPRING FLOUR.

	Sacks.	Barrels.
No grade.....	\$2.00@2.25	\$....@....
Fine.....	2.25@2.50	2.60@2.90
Superfine	2.75@3.20	3.30@3.45

Extra No. 2.....	3.40@3.55	3.55@3.75
Extra No. 1.....	3.80@4.50	3.90@4.50
Clear	4.00@4.90	4.65@5.15
Straight	5.40@5.90	5.90@6.15
Patent	6.00@6.65	6.50@7.05

WINTER FLOUR.

	Sacks.	Barrels.
No grade.....	\$2.90@2.25	\$....@....
Fine.....	2.60@2.85	2.80@3.00
Superfine	3.25@3.40	3.35@3.50
Extra No. 2.....	3.40@3.55	3.70@3.90
Extra No. 1.....	3.80@4.90	5.15@5.65
Clear	4.35@4.75	4.65@5.05
Straight	5.15@5.35	5.15@5.75
Patent	5.40@5.75	5.55@6.40

CITY MILLS.

W. I. grades.....	\$5.25@5.40
Low grades.....	2.45@2.85
Patents.....	6.15@6.85

Rye flour was heavy at \$3.00@3.10. Sales small. Buckwheat flour was dull and weak at \$1.70@1.80. Corn products were firmer at the following quotations: 88@87c. for coarse, \$1.05 for fine yellow and \$2.05@1.10 for fine white; Brandywine and Sagamore, \$2.90; Southern and Western, \$2.75@2.85; coarse meal, 80@85c.; fine yellow, 93c@\$1.00; fine white, \$1.08@1.05; Southern, 80c@\$1.20 for coarse and fine in bags; grits, \$2.50@2.60.

A correspondent writing from Camden, S. C., to a New York paper describes the agricultural outlook in South Carolina as gloomy. This industry is stagnant, and it is difficult to discover in it any seeds of progress. The soil is poor and the climate is unfavorable to almost every crop except cotton and corn. The planters are as poor as their lands, and yet few regions so imperatively require capital for cultivation as does this. The planters can not earn enough to lay up the means for more generous culture and for getting the modern appliances for economizing labor; on the contrary, their dependence on usurious money lenders to provide the necessities of the simplest cultivation is eating up all their earnings and discouraging them with a constant burden of debt. The prestige of virgin lands of the far west draws off immigration in other directions; and if European farmers or even American could be induced to come here, experiment shows that a brief experience is sufficient to discourage them.

BUFFALO MARKETS.

FLOUR—City ground—Patent spring, \$7.25@7.50; straight Duluth spring, \$6.50@6.75; bakers' spring, best, \$6.00@6.25; do rye mixture \$5.25@5.50; patent winter \$7.00@7.25; straight winter \$5.75@6.00; clear winter \$5.50@5.75; cracker \$5.50@5.75; graham \$5.50@5.75; low grade \$3.00@4.25; rye 8.50@8.75 per bbl; buckwheat \$2.50 per cwt. **OATMEAL**—Akron \$8.00; Western \$6.75 per bbl; rolled oats in cases, 75 lbs, \$3.25. **CORNMEAL**—Coarse, 80c.; fine 85c.; granulated \$1.50 per cwt. **WHEAT**—Chicago May closed at \$1.07½, which was ½c better than the closing yesterday. The demand for hard wheat was limited, the only sale reported being 1,500 bu old No. 1 hard on a basis of 29c over Chicago May, and a carload or two of No. 1 Northern at 12c over. Old No. 1 hard closed at \$1.37; new No. 1 hard at \$1.30; No. 1 Northern at \$1.19½, and No. 2 Northern at \$1.18½. Winter wheat was very quiet. All the winter wheat lately bought here by New York parties has been closed out, and there is not to exceed 200,000 bushels now in store here subject to the order of local dealers. The only sales reported were a carload of No. 3 red at 94½c., and 12,000 bu do at 9c under New York May, wh ch opened and closed at \$1.00. No. 2 red closed \$1.06½, and No. 1 white at \$1.07½. **CORN**—Market firm and higher; spot scarce, the bulk of the offerings having been closed out. Sales early 5 carloads No. 3 at 96½c. and 10 do No. 3 yellow at 97c; in the afternoon 4 carloads No. 3 brought 97c spot and 6 do do 97c to arrive; also 6 do No. 3 yellow at 97½c. to arrive. **OATS**—Inquiry light and demand moderate; sales included 7 carloads No. 2 white at 81c, and 1 do choice do at 81½c.; No. 3 white quoted at 29@29½c.; no No. 2 mixed here; white State from wagons \$4@5c. **BARLEY**—Holders report the market steady, but to effect sales they would be obliged to come down a peg or two from the following quotations: No. 1 Canadian 74@75c.; No. 2 70@75c.; No. 3 extra 66@68c.; No. 3 68@65c. **RYE**—No. 2 Western offered at 54c; no inquiry. **RAILROAD FREIGHTS**.—To New York, Baltimore and Philadelphia rate pounds on grain flour, and feed, 18c per 100 lbs; to Albany and West Troy, 10½c; and to Boston, 15c.



SPECIALTIES

ILLUSTRATED FOLDER "T" FOR THE HOLIDAYS. NOW READY.

Please write for a copy at once. Only mailed customers and on application. This is the most complete and extensive list of specialties ever issued by us. Write at once and secure a copy.

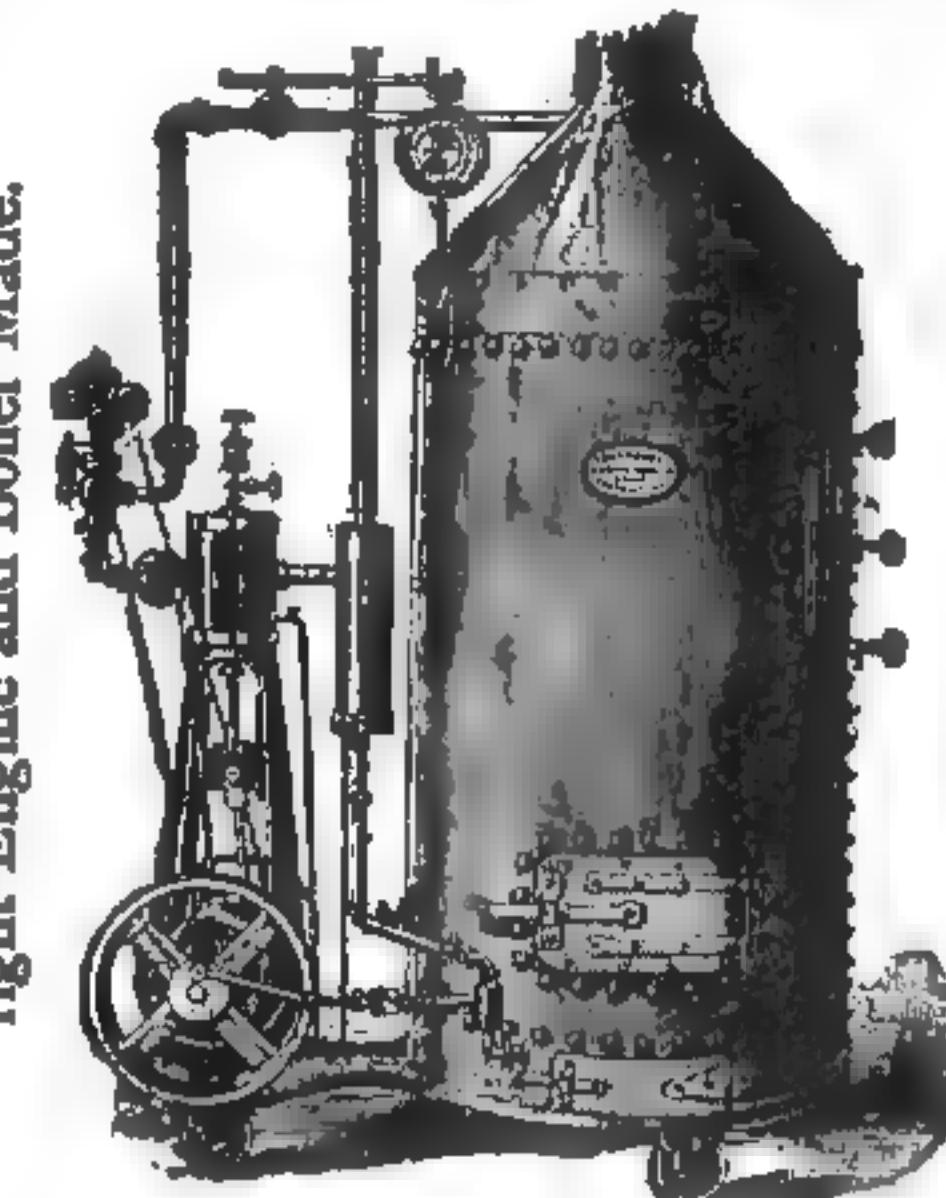
THE H. J. DEAL SPECIALTY CO.
BUCKYRUS, OHIO, U. S. A.

TONAWANDA

ENGINE AND BOILER WORKS

A Large Assortment of Machinery.

The Best 6-Horse Power Semi-Portable Up-right Engine and Boiler Made.



SEND FOR CATALOGUE.

ARMITAGE, HERSCHELL & CO.

Tonawanda N. Y.



THIS WHEEL GIVES HIGH RESULTS, AND
ACKNOWLEDGED THE BEST, MOST PRACTICAL AND EFFICIENT TURBINE MADE.
FOR SIMPLICITY, DURABILITY, AND
TIGHTNESS OF GATE IT HAS NO EQUAL.

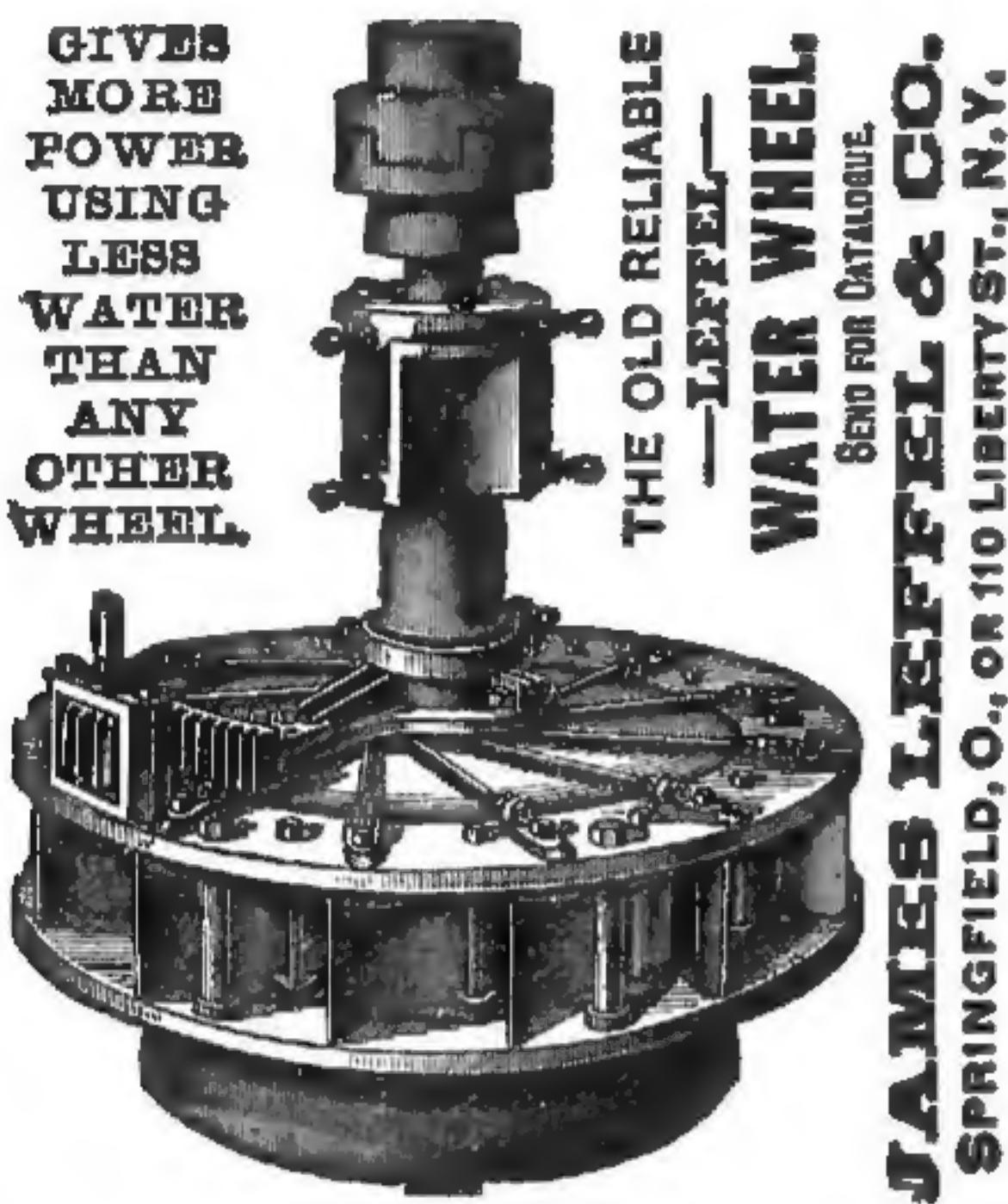
State requirements and send for Catalogue to

T. C. ALCOTT & SON,
MOUNT HOLLY, N. J.

SPECIAL PRICE. GUARANTEED.



287 BROADWAY, N. Y.



WHEN WRITING TO ADVERTISERS PLEASE MENTION "THE MILLING WORLD."

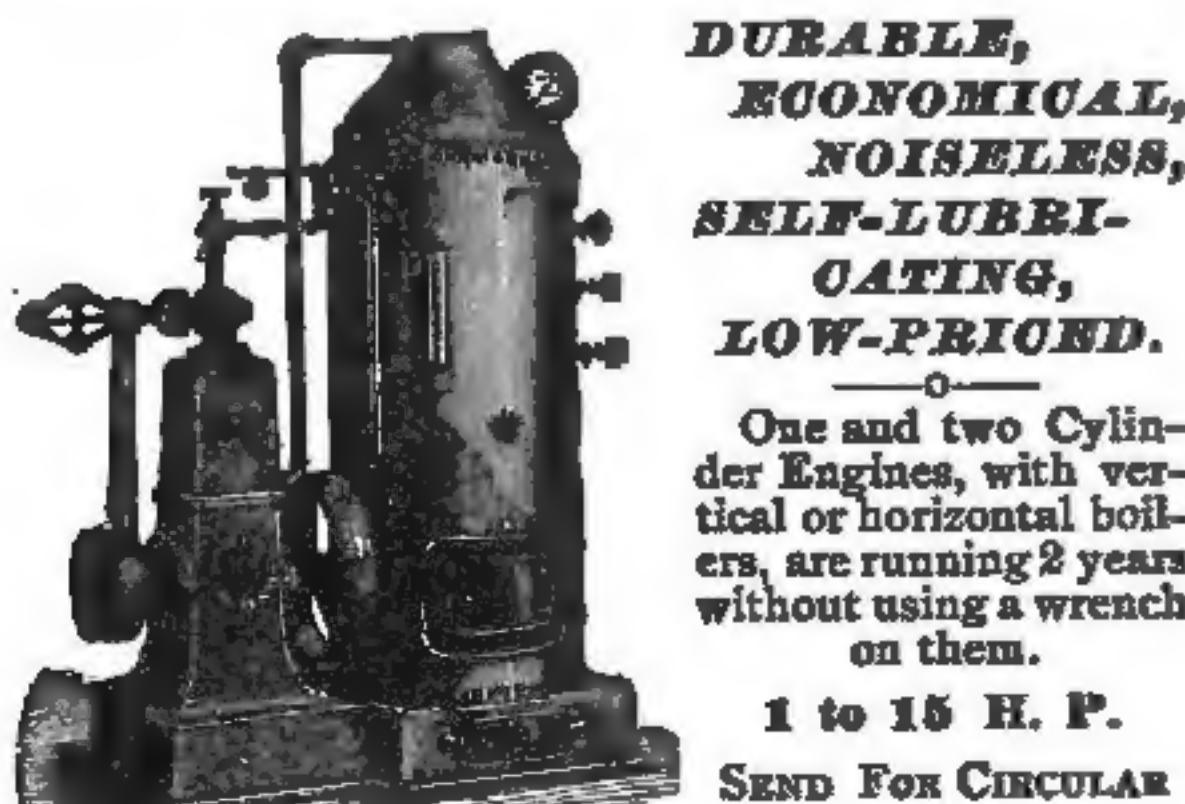
THE "HARLOW"
Positive Feed Lubricators.For Marine and Stationary Engines, Steam Pumps, Electrical and other Machinery.
MAXIMUM ECONOMY IN OIL. MARKED ECONOMY IN FUEL.

Not dependent upon or operated by Steam Pressure, Condensation or Gravity. Not affected by changes of temperature.

BEING operated by some moving portion of the engine or machine to be lubricated, the "Harlow Lubricator" starts and stops with the engine or machine being lubricated, without requiring the slightest attention from the engineer or operator, always delivering the oil in any amount from a drop to a constant stream.

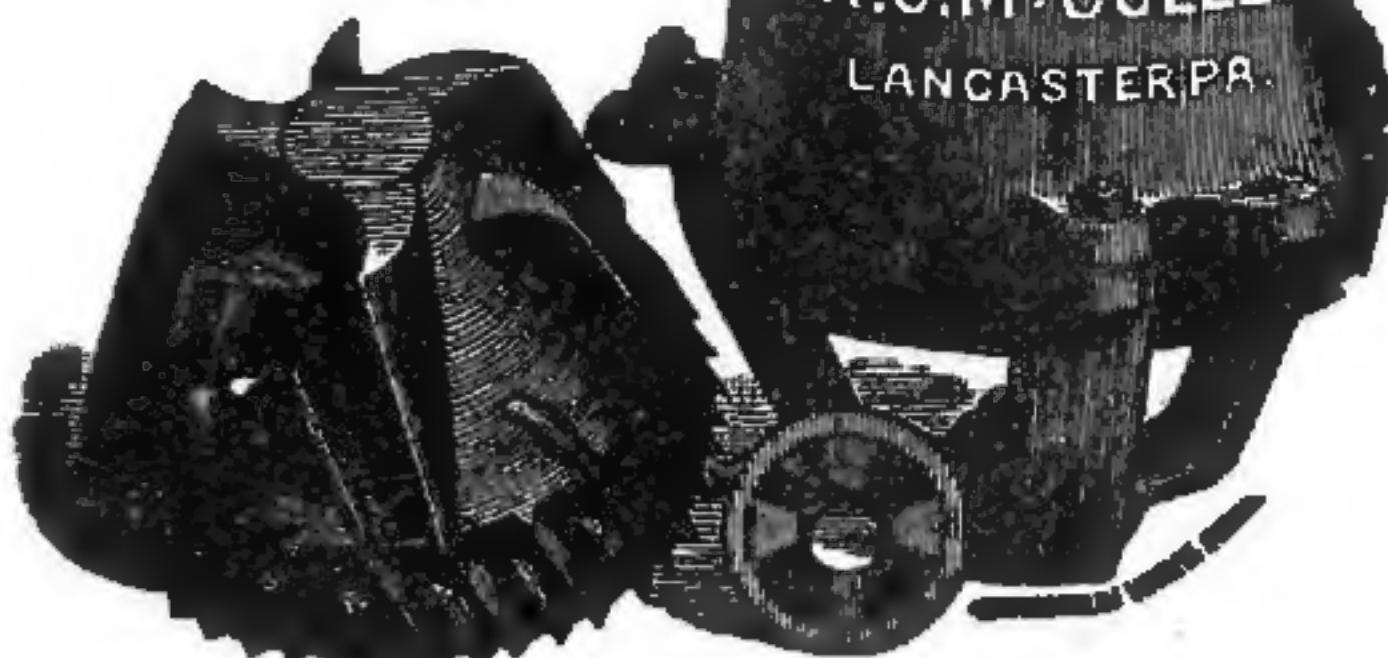
The cup can be filled at any moment while the engine or machine being lubricated is in operation, without causing any leakage either of oil or steam.

Harlow Lubricator Mfg. Co. BOSTON, Mass. U. S. A.

CASTLE ENGINE WORKS
INDIANAPOLIS, IND.**THE BEST AND CHEAPEST CORN AND COB CRUSHER IN THE WORLD.**

LEFT-HAND MILL.

DRIVEN FROM ABOVE.



All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 30 days' trial when satisfactory reference is furnished.

Please Send for Circulars.

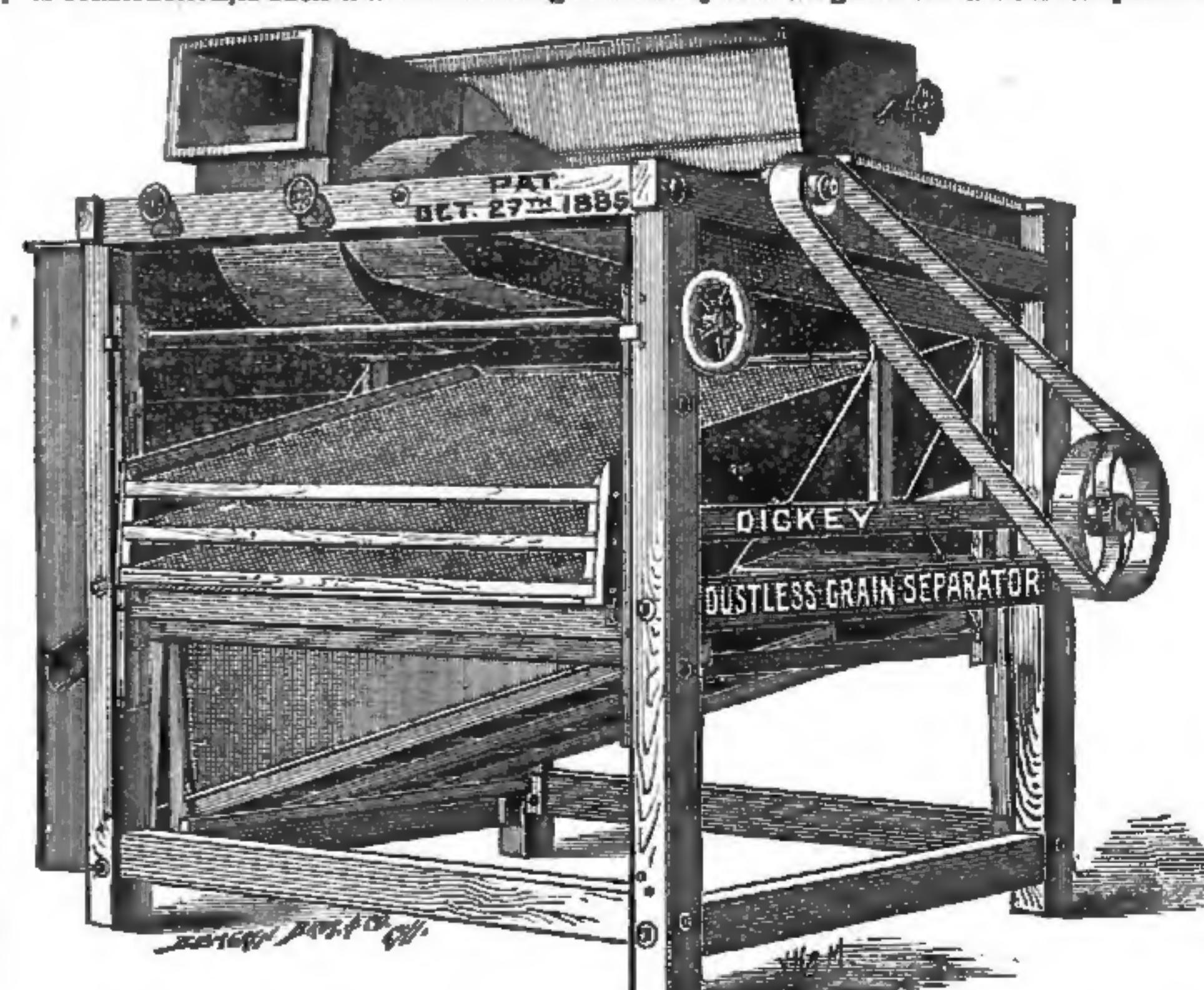
RIGHT-HAND RUNNER.

R. C. McCULLEY, LANCASTER, PENN.**\$15 Will Buy the Best and Cheapest CORN AND COB CRUSHER****IN THE WORLD!**

It can be driven either from above or below. Thousands of these Crushers are now in use throughout the United States and Canada, and are giving entire satisfaction. Send for circular, giving testimonials from millers who are using our Crusher, and know a good thing when they see it.

T. B. WOOD & SONS, CHAMBERSBURG, PA.**DICKEY DUSTLESS GRAIN AND FLAX SEPARATOR**

This Separator is our latest and most perfect, and guaranteed to be the superior of any now on the market. This machine, as can be seen by the cut, is not a warehouse fanning mill with one patent attachment, but is a Dustless Separator, made for the express purpose of thoroughly cleaning and separating all kinds of grain in large quantities; its construction is such that the working machinery and weight is all within the parts or anchors.

WE CLAIM FOR IT SUPERIORITY.

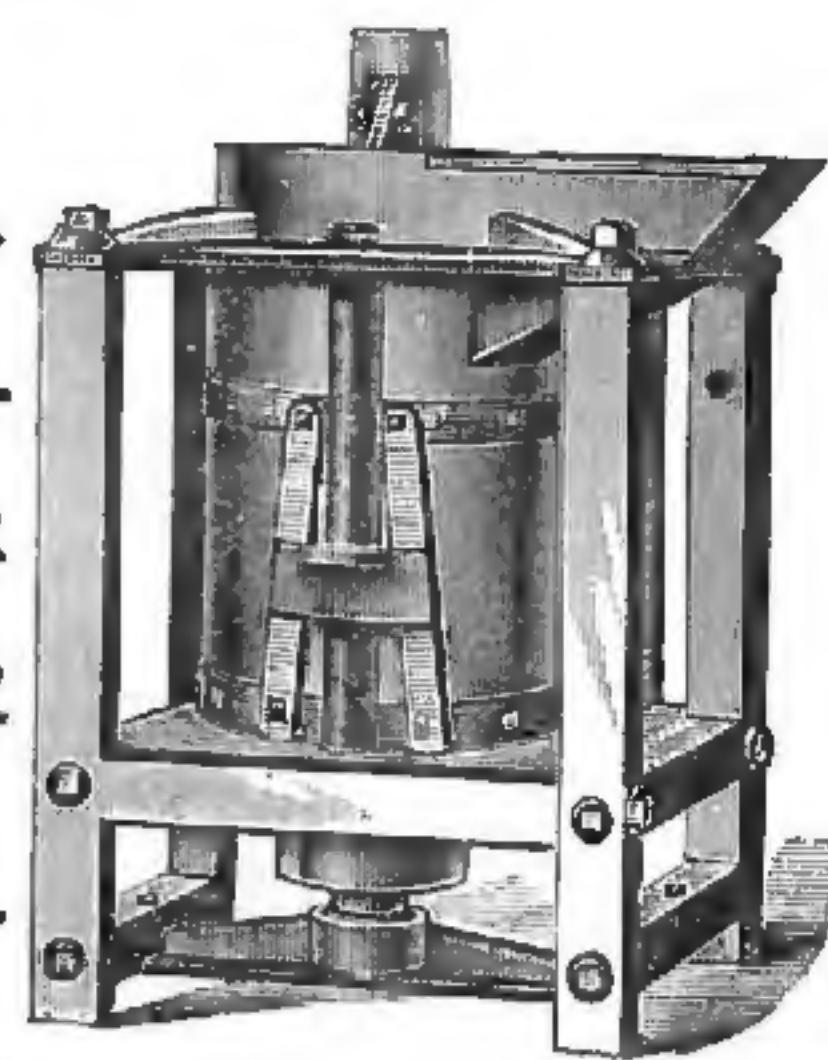
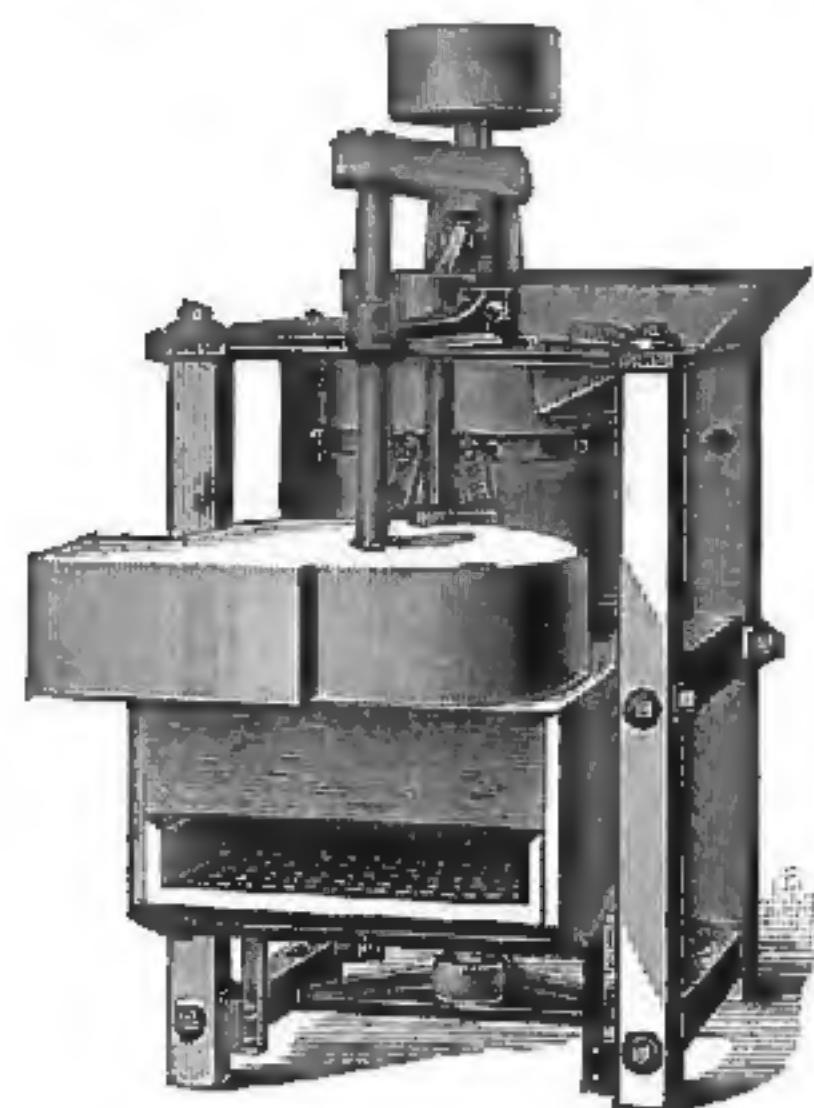
We claim for it Superiority over everything of the kind made, in simpleness, durability, saving of power, capacity and cost of construction. Its height will accommodate any number of spouts from different points, without moving machine. They have a capacity from 700 to 1,500 bushels per hour. We also control exclusively the manufacture of the celebrated Dickey Giant, End and Side Shake, Warehouse Mills, that have attained such a world-wide reputation. Sent on approval to any reliable party. For full particulars address,

A. P. DICKEY MANUFACTURING CO., Successors to Dickey & Pease, RACINE, WIS.**WE CLAIM FOR IT SUPERIORITY.**

The LIPPOLD DUSTLESS CORN SHELLER & CLEANER

MANUFACTURED BY

**The LIPPOLD MFG. CO.
ERIE, - - PENN.**



THE HIGHEST CAPACITY for the LEAST MONEY.

The Best Machines for Mills and Elevators.

Machines Sent on Thirty Days' Trial.

SHELL UNHUSKED CORN AND CLEAN IT PERFECTLY.

WRITE FOR ILLUSTRATED CIRCULAR WITH PRICES.

NAME THIS PAPER.

Chemical Fire Extinguisher Co.

38 & 40 LASALLE STREET.

CHICAGO, - - ILL.

MANUFACTURERS OF THE

Only Chemical Automatic Fire Extinguisher Made.

No Freezing; No Corroding; No Leaking. Cheapness and Absolute Reliability and Reduction in Cost of Insurance. We also manufacture everything in the line of Chemical Extinguishers, from a full 100 gallon engine to a quart Hand Fire Extinguisher, of the best and most approved kind. One gallon of our chemical is equal to 500 gallons of water.

SEND FOR ILLUSTRATED CATALOGUE.

**L. L. WHITLOCK,
Advertising Agent**

FOR MANUFACTURERS.

TRADE JOURNALS A SPECIALTY.

P. O. DRAWER 5323. Boston, Mass.

As Agent for Advertisers instead of Papers, I obtain the Best Rates Possible for my Customers.

New Improved Patent Head Linings.



DESCRIPTION.

These Linings are curved edgewise and flatwise, besides having the edge beveled, so as to make them fit the head and chine PERFECTLY, without springing them edgewise when nailing.

If you use them once you will have NO OTHER. No need of pounding fingers, as the ends do not have to be held down while nailing. They are much more convenient to nail and look better than any other. They are first tied in bundles of two hundred, and, when dry, are put into bales, weighing about fifty pounds each, and tied with two strong wires, to make them handle better and to prevent loosing out in transit.

Write for prices and state about the number you use per year.

To convince you of their merit, and for the purpose of introducing them, I will ship a sample order of from five to ten thousand at a REDUCED RATE.

BEND US A TRIAL ORDER. SATISFACTION GUARANTEED. J. H. PETERS,
Owner of Patent and Manufacturer,

COLEMAN, MICH.

* **THE INK ***

WITH WHICH THIS PAPER IS PRINTED
IS MADE BY THE**QUEEN CITY PRINTING INK CO.
CINCINNATI, O.**

**"DE MAN WOT KNOWS IT ALL
is allus a-makin' change, a-
buyin' ob experience."**

The man who does not think that he "Knows It All" about

Pumps, Steam Engines and Boilers
Can find out a great deal about them in

GRIMSHAW'S PUMP CATECHISM - \$1.00

STEAM ENGINE CATECHISM - - - 2.00

BOILER CATECHISM - - - - - 2.00

PREPARING FOR INDICATION - - 1.00

BY MAIL POSTPAID.

McPaul & Nolan, - Buffalo, N. Y.

CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

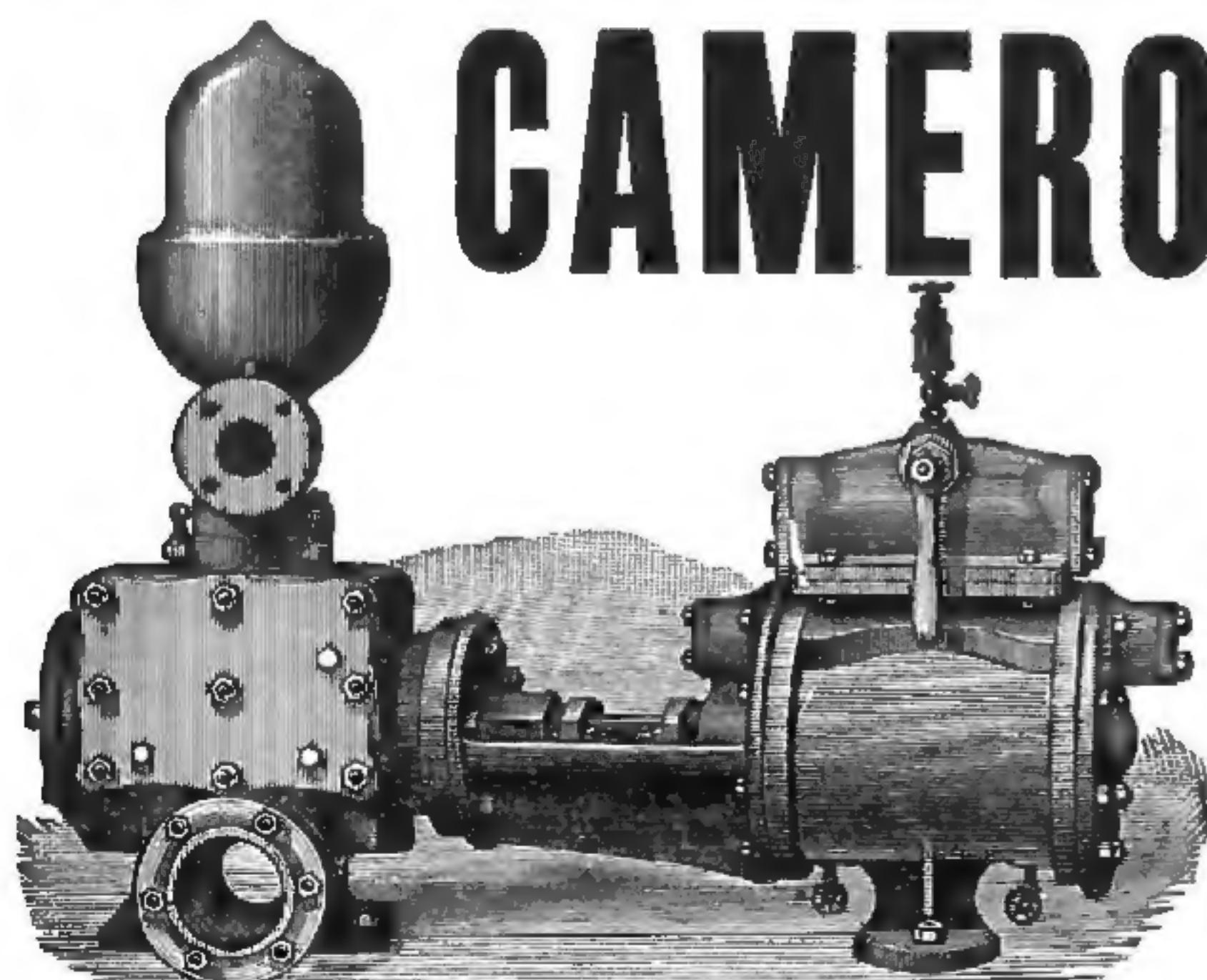
**SIMPLE! COMPACT! DURABLE!
"NO OUTSIDE VALVE GEAR."**

Steam, Air & Vacuum Pumps in Every Variety

FOR ILLUSTRATED CATALOGUE ADDRESS

THE A.S. CAMERON STEAM PUMP WORKS

Foot of East 23d Street. - New York.

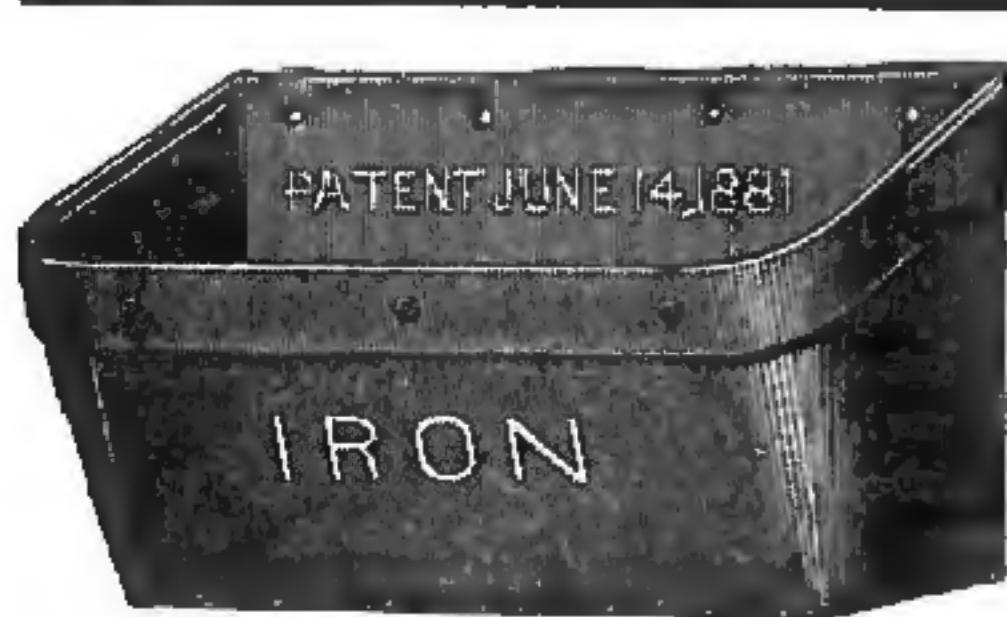


BOSS † ELEVATOR † BUCKETS.

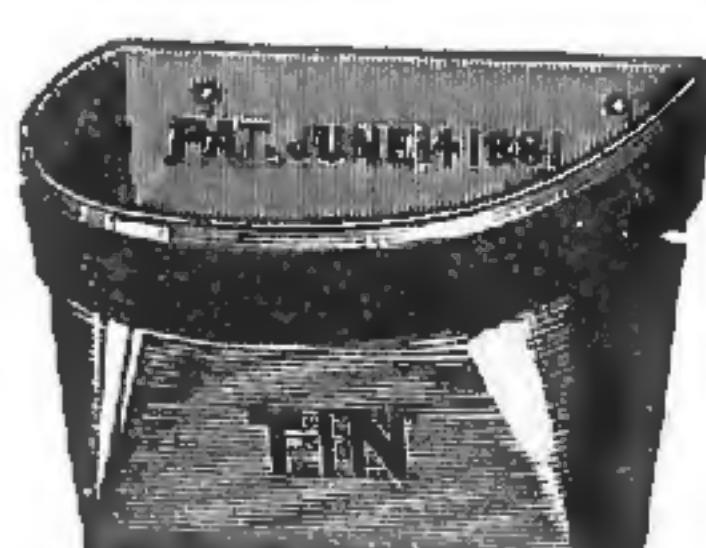
If you are interested ask for Prices. Manufactured only by

W. P. MYER, INDIANAPOLIS, IND.

16, 18 AND 20 EAST SOUTH STREET.

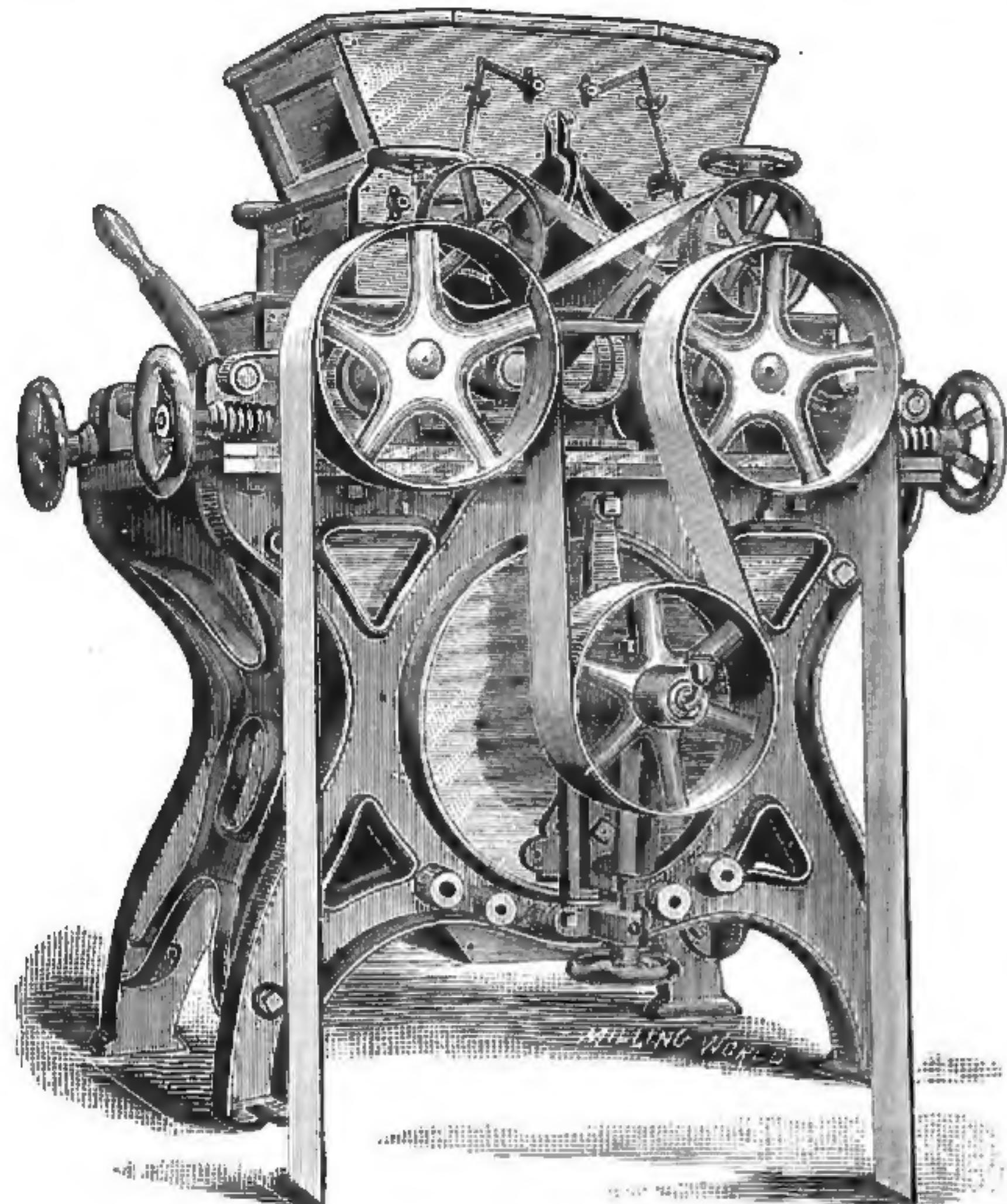


Made of sheet steel, with heavy band.



Made of tinned steel plate, with iron band.

JOHN HUTCHISON MFG. CO., Mill Builders and Mill Furnishers.



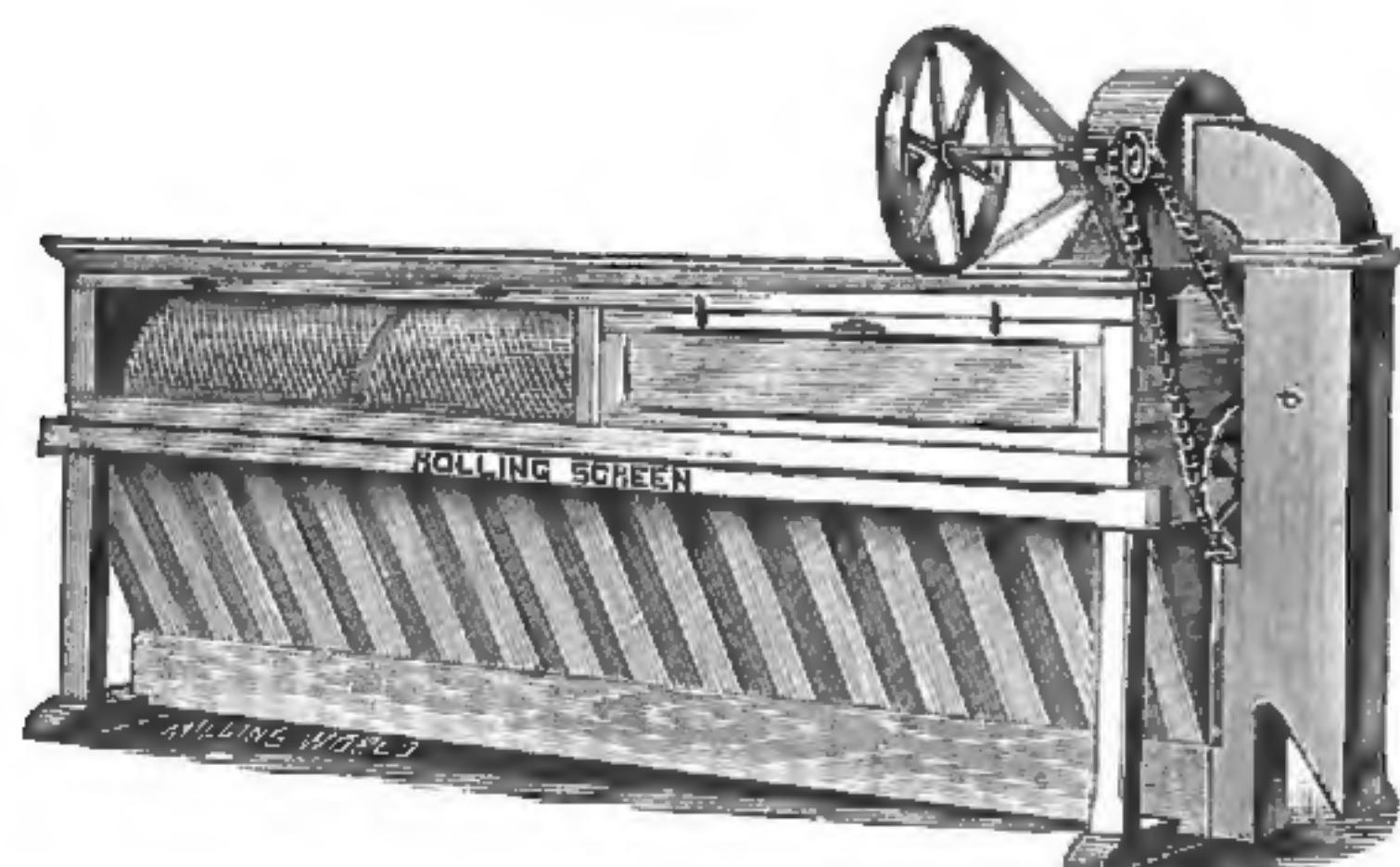
"The Rickerson." The original six inch 4 Roller Mill. We now own the patents on this mill and after greatly improving the mill manufacture them in four sizes:

6x12 inch.

6x18 inch.

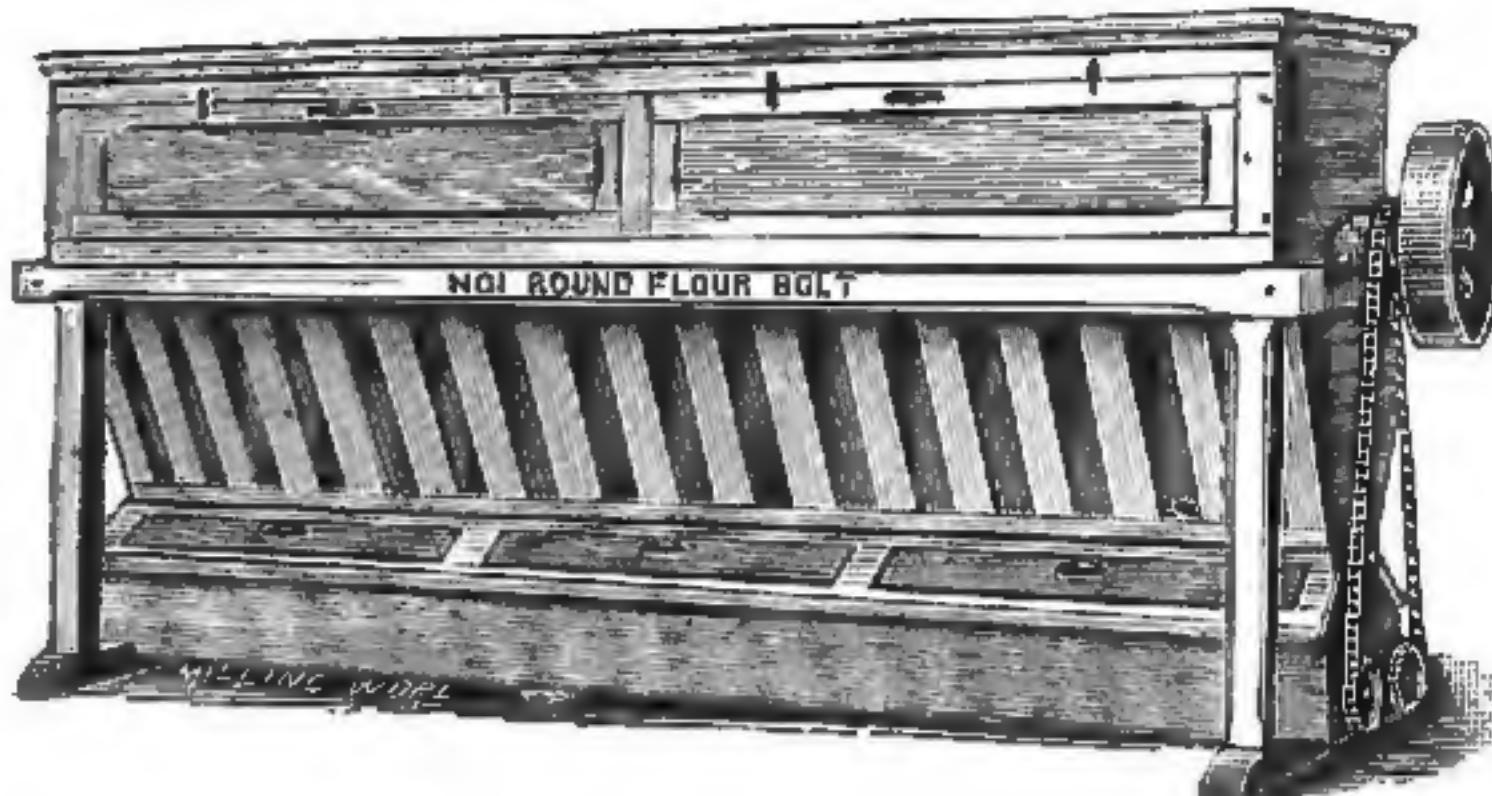
6x15 "

6x20 "

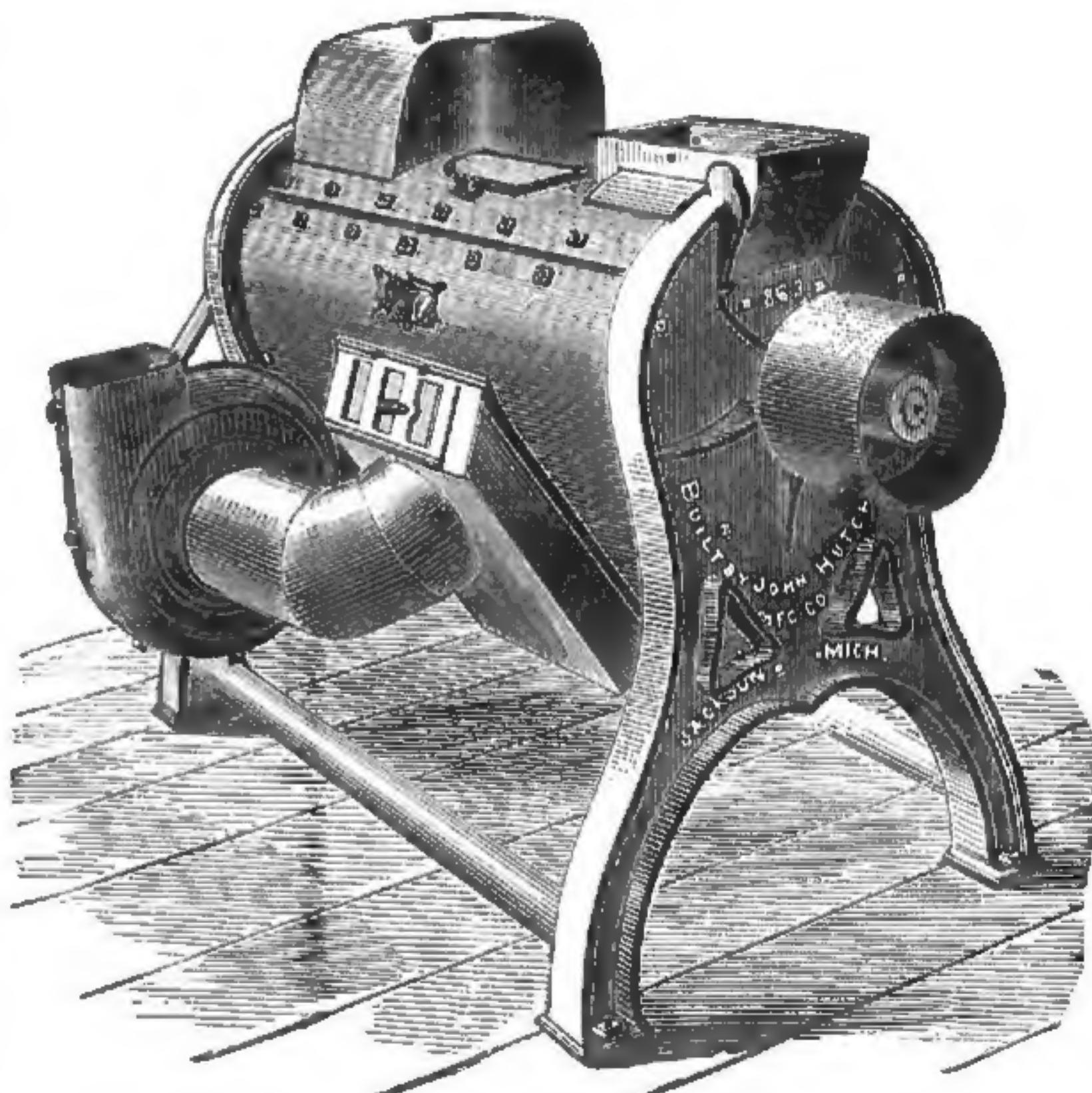


The above cut represents our New Rolling Screen, which is absolutely dustless and has as much scouring qualities as any two scouring machines now being made.

Send for Estimates for Our Full Roller Mills of any Capacity.



The above cut shows our New Round Slow Running Flour Bolt. We also build a Cylinder or Round Scalping Reel and we have lately built a number of new mills of medium capacity, using our Roller Mills, our Round Flour Bolts and Scalping Reels, getting better results than is usually obtained.



Hutchison's New Dustless Iron Corn Sheller, especially adapted for Mill and Elevator use.

—ADDRESS ALL CORRESPONDENCE TO:—

John Hutchison Mfg. Co.
JACKSON, - - - MICHIGAN.

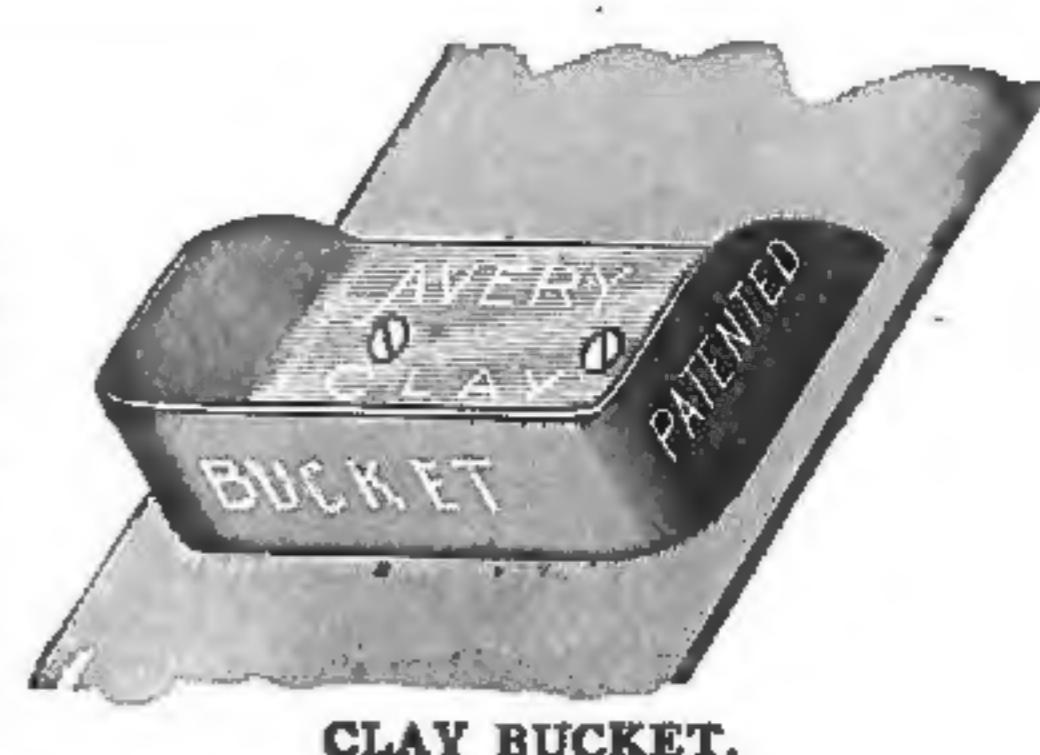


ELEVATOR BUCKET.

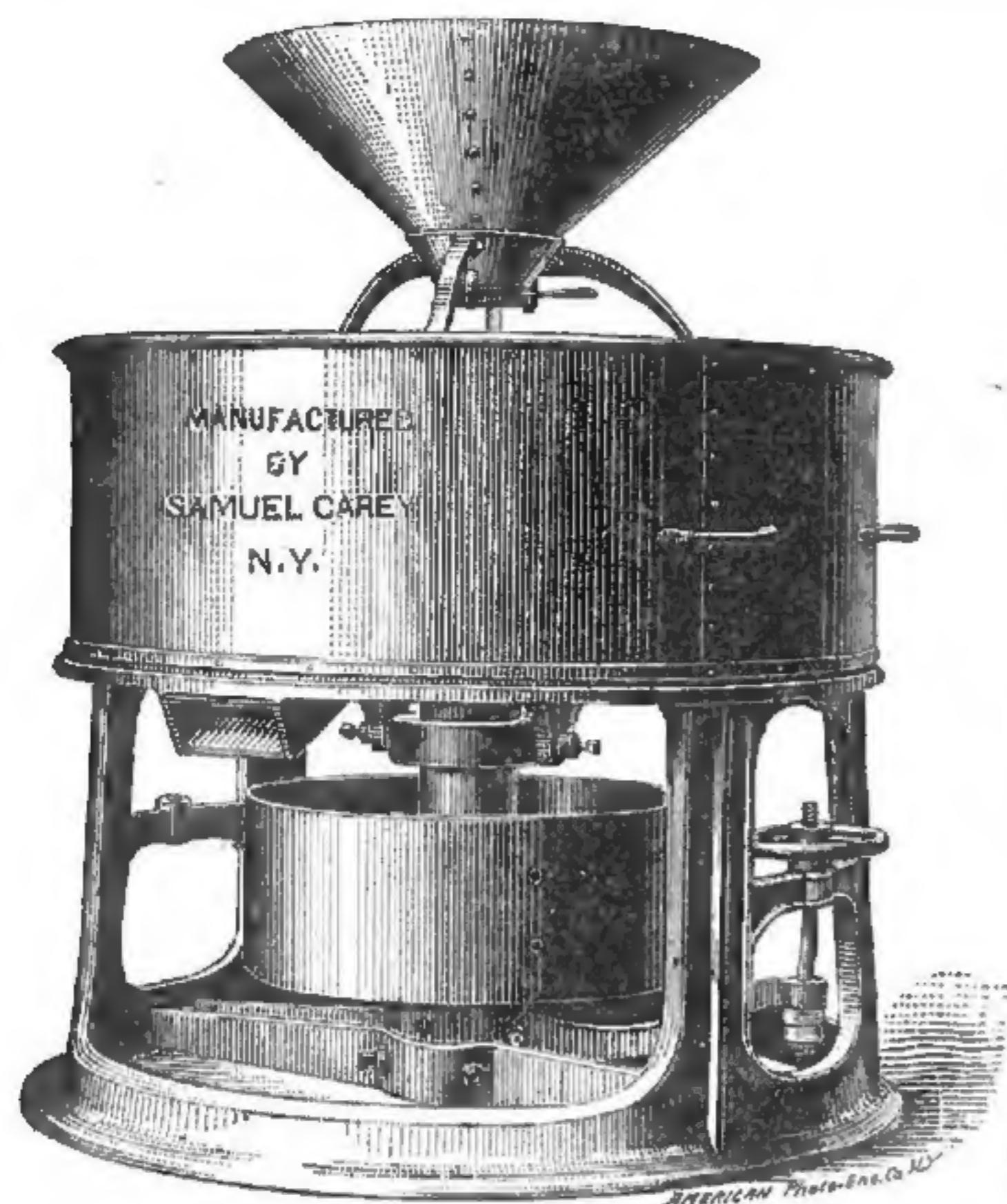
PLEASE NOTICE.

Our patents not only cover Seamless, Drawn, Stamped, Pressed or Forged Elevator Buckets; but also Pre-Date and Cover Round-Cornered Elevator Buckets when made Seamless, and are the Only patents ever issued in the World for a Pressed, Stamped, Drawn or Forged Seamless Elevator Bucket.

THE AVERY STAMPING CO.,
Successors to The Avery Elevator Bucket Co.,
Cleveland, Ohio, U. S. A.



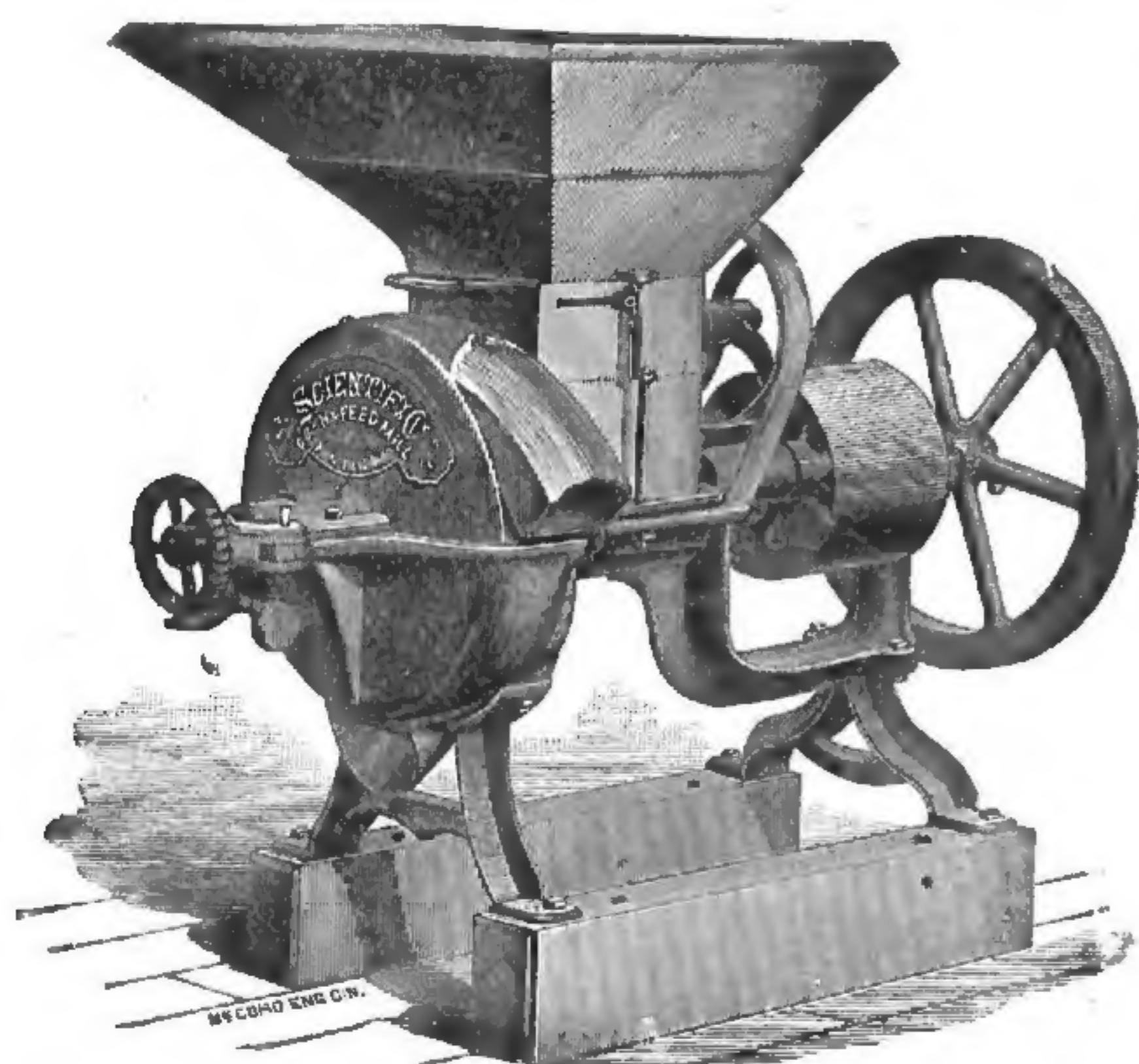
CLAY BUCKET.



SELF-TRAMMING
PORTABLE MILL
BEST GRINDING MILL MADE.
BOLTING CLOTH
WRITE FOR DISCOUNTS.
BURR MILLSTONES
CHEAP.

Send for "SPECIAL PRICES," Giving Size
Wanted, to

SAMUEL CAREY, 17 BROADWAY, NEW YORK



—THE SCIENTIFIC
GRINDING MILL.

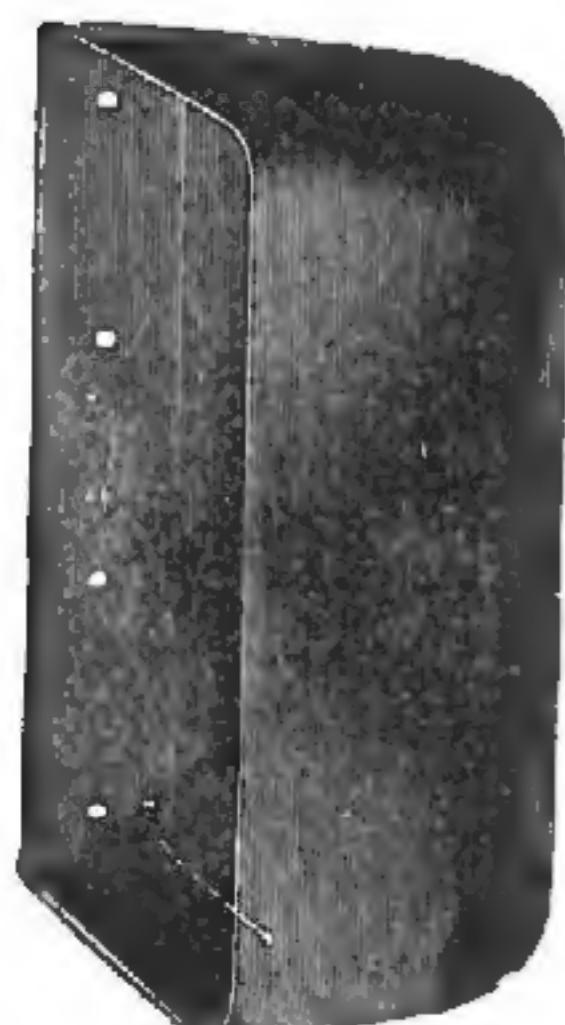
POSITIVELY THE BEST MILL ON EARTH.
GRINDS PERFECTLY, EAR CORN, SHELL CORN,
AND ALL GRAINS.

GRINDING PLATES A SPECIAL METAL

*Hard as Steel, Guaranteed to Grind from Five to Eight
Thousand Bushels before wearing out.*

SEND FOR ILLUSTRATED CATALOGUE, PRICES, ETC.

THE FOOS MFG. CO.
SPRINGFIELD OHIO.

**STILL ON TOP.**

Perhaps the HIGHEST COMPLIMENT that could be paid the "Salem" bucket is the fact that during the past few years ITS SHAPE HAS BEEN SO CLOSELY IMITATED by other manufacturers as to infringe our patented rights, but experience reveals the IMPERFECTIONS OF IMITATIONS, and we therefore take it as a FURTHER COMPLIMENT to the "SALEM" bucket that some of its old patrons who were *Induced to Try the Imitations have now Returned to the Salem Bucket, thereby Acknowledging it to be the Most Satisfactory.* Don't be deceived by other makes of buckets that are claimed to be "Just as Good." Insist upon having the ORIGINAL AND RELIABLE SALEM BUCKET. All legitimate Salem buckets are plainly marked with the word

SALEM

W. J. CLARK & CO., SOLE Manufacturers **SALEM, OHIO.**
THORNBURGH & GLESSNER, General Agents, CHICAGO, ILL.